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Source: *Early American Studies*, Winter 2016, Vol. 14, No. 1 (Winter 2016), pp. 2-47

Published by: University of Pennsylvania Press

Stable URL: <https://www.jstor.org/stable/44630814>

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George Washington's Dentures

Disability, Deception, and the Republican Body

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ABSTRACT George Washington's dentures are well known but understudied. This article examines the first president's extant dentures along with medical texts, satirical prints, portraits, novels, and elocution manuals that circulated around the Atlantic to argue that, by concealing his tooth loss, Washington's dentures enabled him to perform republican virtue. Inserting Washington's false teeth into early Americans' larger cultural interest in deception, made evident in *trompe l'oeil* painting, reveals the ways that these new citizens accepted some amount of dissimulation in their republic in the name of politeness. Finally, considering the fact that Washington paid slaves for teeth that were then probably used in his dentures, the article examines his prostheses from the perspective of both the presidential wearer and the men and women he enslaved.

George Washington's teeth are as much a part of the first president's lore as his fictitious hatchet and cherry tree (figure 1). Today, the general's dentures—mounted between diminutive brass posts and suspended in a clear tube—are one of the most popular items at George Washington's

My fascination with Washington's dentures started in childhood (like so many others'). I had the privilege to work at George Washington's Mount Vernon in 2010–11. Though I researched and wrote this article after I left the institution, I would like to thank Mount Vernon's staff for their stellar preservation and interpretation of the dentures and many other objects. I am grateful for conversations about Mount Vernon's artifacts and enslaved community shared with Carol Borchert Cadou, Susan Schoelwer, Mary Thompson, Robyn Adams, Samantha Dorsey, Amanda Isaac, Dennis Pogue, Esther White, and Eleanor Breen. Dawn Bonner and Melissa Wood provided crucial images. Thanks are also due to the anonymous readers of this essay and Dallett Hemphill, Rosemarie Zagari, and Christian J. Koot for their insightful comments.

Early American Studies (Winter 2016)

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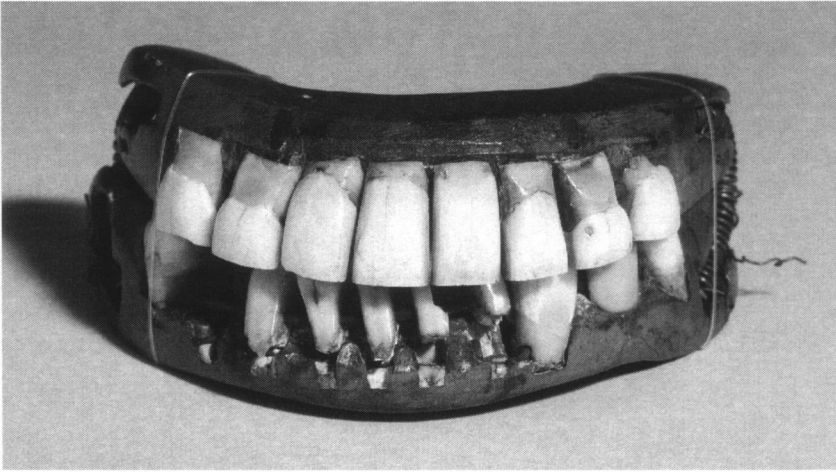


Figure 1. Dentures, 1790–99. Courtesy of George Washington's Mount Vernon, W-1520/A–B.

Mount Vernon, and the site's online message boards are crowded with questions about Washington's supposedly wooden teeth.¹ Despite Washington's teeth's fame, scholars have yet to fully explore his dentures' function, their relationship to other dental prostheses produced in the British Atlantic world, and finally—and most important—the role his dentures played in helping Washington construct his presidential image.² My approach is an interdisciplinary one that uses artifact analysis to retrace the bodily interactions between Washington and his dentures in order to triangulate emerging ideas about disability, concealment, and the performance of republican virtue. Even as political leaders embraced bodily mastery as a

1. George Washington's only surviving complete set of dentures is on display in the Donald W. Reynolds Education Center at George Washington's Mount Vernon. For the continued myth that Washington's teeth were wooden, see William M. Etter, "Wooden Teeth Myth," www.mountvernon.org/research-collections/digital-encyclopedia/article/wooden-teeth-myth/, accessed August 27, 2015.

2. William M. Etter, "False Teeth," *George Washington Digital Encyclopedia*, www.mountvernon.org/educational-resources/encyclopedia/false-teeth, accessed January 3, 2013. Bernhard W. Weinberger, "George Washington's Dentures," *Dental Survey* 10 (February 1934): 28–29. John M. Hyson Jr., "George Washington's Dental History and Relics" (M.A. thesis, University of Delaware, 1999). Dr. Reidar F. Sognnaes, a dentist, conducted the most thorough physical examination of Washington's existing dentures; see "Dental 'Fingerprints' of Some Famous and Infamous People," *Proceedings of the 30th Annual Meeting of the American Institute of Oral*

route to greater morality, and thus, they hoped, success for the fledging nation, their president suffered from a physical loss that compromised his civility. By exploring how and why Washington went to such great lengths to conceal his tooth loss, this essay offers a starting point from which to consider the ways that physical impairment and its denial came together in the public display of the male republican body.³

WASHINGTON'S DENTURES AND THE BIRTH OF DENTISTRY

To begin, we must look carefully at Washington's teeth themselves. The first president began experiencing dental problems early in life, probably the result of illness, the harsh drugs used to treat that illness, and the abrasiveness of eighteenth-century dental cleaning products. Washington had his first tooth pulled at the age of twenty-four and lost teeth consistently thereafter. By the time he was sworn in as president, he had only one tooth remaining, which his dentist was soon forced to remove.⁴ For his entire presidency, then, Washington wore full sets of dentures (both upper and lower). Far removed from the simple wooden pegs that most schoolchildren imagine, these artificial teeth embodied the massive changes in dental care that occurred in Washington's lifetime. Beginning in the 1720s, a group of educated French practitioners began to distinguish themselves from the simple village "tooth drawers" who pulled teeth for a nominal fee and offered no preventative aid. Dentists, as they now called themselves, applied new standards of scientific rigor to treating diseases of the teeth and gums. Akin to physicians and surgeons in their efforts at professionalization, dentists (or surgeon dentists, as they were

Biology (November 17, 1973): 127–32, and "George Washington's Bite," *California Dental Association Journal: 200 Years of American Dentistry* (June 1976): 34–40.

3. Gordon S. Wood, *The Creation of the American Republic, 1776–1787* (Chapel Hill: University of North Carolina Press, 1969). Dell Upton, "Another City: The Urban Cultural Landscape in the Early Republic," in Catherine E. Hutchins, ed., *Everyday Life in the Early Republic* (Winterthur, Del.: Henry Francis du Pont Winterthur Museum, 1994), 61–117. My work intersects with the aims of scholars in disability history; see Catherine J. Kudlick, "Disability History: Why We Need Another 'Other,'" *American Historical Review* 108, no. 3 (June 2003): 763–93; Thomas A. Foster, "Recovering Washington's Body-Double: Disability and Manliness in the Life and Legacy of a Founding Father," *Disability Studies Quarterly* 32, no. 1 (2012), <http://dsq-sds.org/article/view/3028/3064>, accessed September 2, 2014.

4. Hyson, "George Washington's Dental History," 6–45; Etter, "False Teeth."

often called) argued that theirs was a medical science that should be practiced only by those with training.⁵

American consumers, including George Washington, eagerly sought the services of the first dentists who made their way to the American colonies from Europe. Dr. John Baker, one of the earliest practitioners known to work in America, journeyed from England in 1767. Baker found great success; he advertised that he treated “upward of 2,000 persons in the town of Boston” during his yearlong stay in that city. He discovered still more eager customers in his travels to Newport, New York City, Philadelphia, Maryland, and Virginia, including George Washington, who visited him while in Williamsburg in April 1772. Other American dentists emerged from the ranks of urban artisans. Paul Revere, Boston’s noted silversmith, dabbled in the manufacture of dental prostheses for a period. (For many years Revere was erroneously thought to have manufactured a set of dentures for George Washington.)⁶

The most famous craftsmen-turned-dentists were the members of the Greenwood family. The Bostonian Isaac Greenwood, who trained with John Baker, started his career as an ivory turner and became America’s first native-born dentist. His facility with ivory doubtless led him to the trade, as many artificial teeth were made from this material. One of his sons, John Greenwood, became New York City’s premier dentist and George Washington’s favored practitioner. Greenwood, who treated Washington from roughly 1791 until the president’s death, manufactured and repaired several of Washington’s prostheses, and he enjoyed a lengthy correspondence with the president. Washington’s choice of a New York City dentist suggests the difficulty of obtaining dental care in eighteenth-century

5. Colin Jones, “Pulling Teeth in Eighteenth-Century Paris,” *Past & Present* 166 (February 2000): 100–145, esp. 118–45. Bernhard W. Weinberger, *An Introduction to the History of Dentistry in America*, 2 vols. (St. Louis: C. V. Mosby, 1948).

6. Peter Benes, “Itinerant Physicians, Healers, and Surgeon-Dentists in New England and New York, 1720–1825,” in Peter Benes, ed., *Medicine and Healing: Dublin Seminar for New England Folklife, Annual Proceedings, 1990* (Boston: Boston University Press, 1992), 95–112. Robert I. Goler, *The Healing Arts in Early America* (New York: Fraunces Tavern Museum, 1985), 42–44. John Baker, advertisement, *New-York Gazette and Weekly Mercury*, May 16, 1768, 4. For Washington’s payment to Dr. John Baker, see George Washington, Cash Accounts, April 1772, in *The Papers of George Washington Digital Edition*, ed. Theodore J. Crackel (Charlottesville: University of Virginia Press, 2008), accessed June 11, 2014. For the complete list of Washington’s dentists, see Hyson, “George Washington’s Dental History,” 8–26. Esther Forbes, *Paul Revere and the World He Lived In* (Boston: Houghton Mifflin, 1942), 128–33.

America. Because only a few cities could boast a resident dentist and many practitioners continued to be itinerant well into the nineteenth century, the majority of Americans went to a dentist only when one happened to travel nearby. Or, like Washington, they conducted their dental treatment through correspondence.⁷

As George Washington well knew, by the late eighteenth century dentists placed greater emphasis on the development and production of dental technologies such as fillings, bridges, and partial and full dentures than their predecessors had. These treatments gave dentists a means to prolong teeth's health, as well as to offer patients a replacement for teeth that could not be saved. Dentures were a key part of dentists' quest for acceptance as skilled medical doctors because their production helped distinguish them from mechanical tooth drawers. The advertisements that dentists placed in American newspapers consistently stressed their ability to save teeth and to manufacture dentures. For example, Isaac Greenwood notified the public in the *Boston Gazette*, and *The Country Journal* in 1783 that he "continues to make and fix artificial teeth—cleanses teeth and gums—and performs every thing else that is proper for the preservation of both."⁸

The technological sophistication of eighteenth-century dentistry becomes visible when we study the only complete set of Washington's dentures to survive, probably manufactured by John Greenwood, some time between 1790 and 1799, and now in the collection of George Washington's Mount Vernon (see figure 1).⁹ The dentures consist of two cast-lead bases that fit against Washington's upper and lower jaws. Each tooth has a hole drilled through it so that it could be threaded onto a brass wire and attached to the base. The bases are connected by circular steel springs that allowed the dentures to move up or down with Washington's mouth (figure 2). The lower set consists of human teeth as well as false teeth fashioned from cow's teeth and

7. Malvin E. Ring, "John Greenwood, Dentist to President Washington," *California Dental Association Journal* 38, no. 12 (December 2010): 846–51.

8. D. G. Hillam, "Dental Treatment of the Early Nineteenth Century: How Effective Was It?" *Dental Historian* 17 (1989): 20–33, esp. 28. Isaac Greenwood, advertisement, *Boston Gazette*, and *The Country Journal*, September 6, 1783, 3.

9. Traditionally, the Mount Vernon dentures (which are unmarked) have been attributed to the artist Charles Willson Peale. See, for instance, Hyson, "George Washington's Dental History," 66–68. The Peale attribution, however, cannot be substantiated. Mount Vernon now exhibits the dentures as the work of an unknown maker. Although they cannot be definitively attributed to John Greenwood, I think it likely that he manufactured this pair, given their technological sophistication and resemblance to another pair (soon to be described) that also exhibits spiral springs.

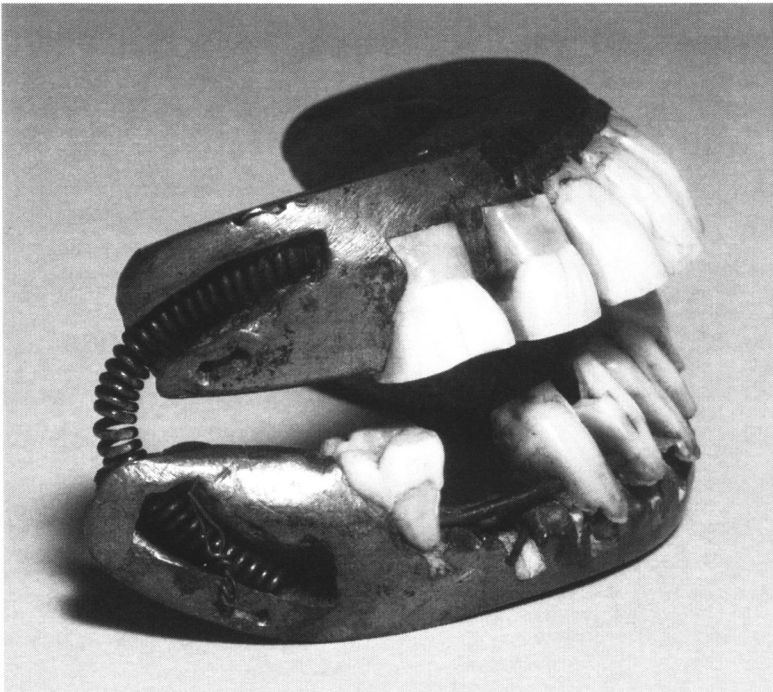


Figure 2. Dentures (side view), 1790–99. Courtesy of George Washington's Mount Vernon, W-1520/A–B.

ivory, whereas the upper contains reshaped horse's teeth. These materials are common for period examples. Dental treatises recommended the use of "sea-horse's" teeth (hippopotamus tusks) as well as "elephant's, ox's, and calf's teeth, teeth extracted from dead human bodies . . . and even human teeth from living persons." As grisly as the use of human teeth in dentures seems to our modern sensibilities, dentists deemed them to be "at all times preferable where they can be had." Human teeth were difficult to attain, however, and in practice dentists blended specimens from mammals of vastly different sizes. This presented dentists with a challenge. Greenwood gave Washington's dentures a consistent internal scale by employing smaller human and cow teeth on the bottom, and making the larger upper teeth from horse's incisors that he turned upside down and then filed to resemble human examples.¹⁰

10. John Woodforde, *The Strange Story of False Teeth* (London: Routledge, 1968), 93–108. For Greenwood's technical prowess, see Hyson, "George Washington's Dental History," 73–74. There have been various identifications of the materi-

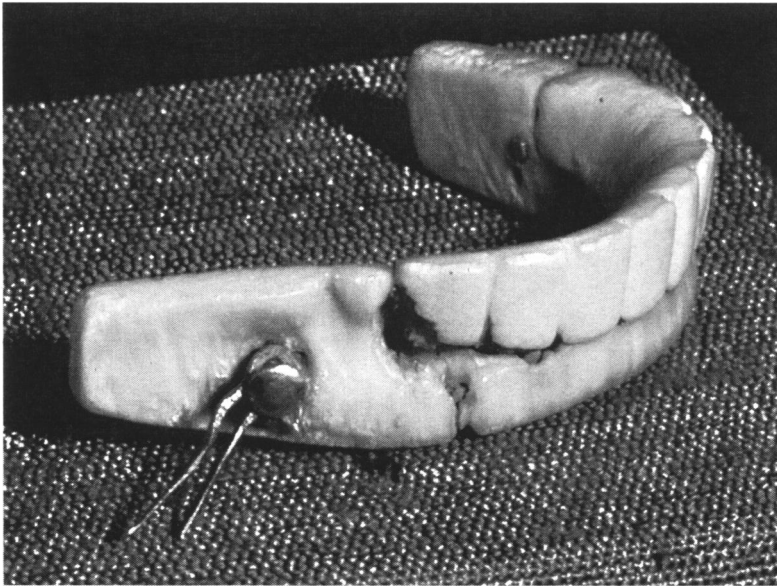


Figure 3. John Greenwood, lower denture produced for George Washington, ca. 1790. Courtesy of the National Museum of Dentistry.

Washington's other dentures employed materials similar to those used in the Mount Vernon pair, though all differed slightly in their mode of manufacture. A second set, also attributed to John Greenwood, is reminiscent of the Mount Vernon prostheses in that it originally consisted of an upper and lower denture held together by gold spiral springs attached at the rear of the bases (figure 3). The artificial teeth, however, are carved entirely from hippopotamus teeth. Dentists encouraged the use of hippopotamus, as it was denser than either elephant or walrus ivory and therefore resisted staining and deteriorated more slowly. Whereas Greenwood employed lead

als used in the Mount Vernon set, and the teeth would benefit from further scientific investigation. The most complete analysis was conducted in the 1970s by Dr. Reidar Sognnaes, professor of oral biology and anatomy at the Schools of Dentistry and Medicine, UCLA; see Sognnaes, "Dental 'Fingerprints,'" 130–31, and "George Washington's Bite," 36. More recently, Mount Vernon's curator, Dr. Susan Schoelwer, has discussed the materials used in the Washington dentures; see "Washington's Dentures," <http://vimeo.com/69921972>, accessed August 27, 2015. Nicolas Dubois de Chémant, *A Dissertation on Artificial Teeth in General* (London: J. Barker, 1797), 9. For a similar list of materials, see F. B. Spilsbury, *Every Lady and Gentleman Their Own Dentist* (London: J. Barker, 1791), 56.

for the Mount Vernon set, this example originally had an upper base of gold. The choice of this softer and lighter metal enabled the dentist to more accurately shape the palate to accommodate Washington's mouth and offered the president a lighter prosthesis. Despite these innovations, the materials created more problems than they solved: Greenwood had to attach braces to the bottom of the dentures' upper portion to compensate for the added weight of the hippopotamus teeth, which caused Washington a great deal of discomfort.¹¹

Washington's extant artificial teeth demonstrate that the general availed himself of the most recent trans-Atlantic innovations in dentistry. This is especially evident with the Mount Vernon set, which successfully addressed a problem that had been unsolvable until the late eighteenth century: producing artificial teeth that did not fasten to an existing tooth, but could be worn when the person had lost all of his or her teeth. For instance, the first set of dentures that Greenwood manufactured for the president, probably in 1789, employed a more straightforward mode of attachment (figure 4). The carved ivory lower piece fit around Washington's sole surviving tooth (his lower left bicuspid), relying on it to keep the denture in his mouth. By contrast, Greenwood's second set of dentures used the tension created by the steel springs to force the apparatus against the president's gums, thus fixing it in his mouth.¹²

John Greenwood and his father, Isaac, were among the first American dentists known to use springs for this purpose. John Greenwood's advertisement in the *New York Daily Advertiser* from 1790 lauds his embrace of the new technology, trumpeting, "He makes whole setts of teeth, and fixes them in the mouth where there is neither tooth nor stump." Washington's prostheses are the only known extant example of this technology from early America. In producing the springs, Greenwood probably adapted the designs available in dental treatises published in London and Paris. He may have consulted the work of Nicolas Dubois de Chémant—the most famous

11. For Washington's other known dentures, see Sognnaes, "Dental 'Fingerprints,'" 128–32, and "George Washington's Bite," 34–39; Hyson, "George Washington's Dental History," 69–76. Unfortunately, the upper half of the pair is known only through photographs, as it was stolen in 1981. The lower half remains in the collection of the National Museum of Dentistry.

12. Hyson, "George Washington's Dental History," 63–65. For spring-loaded dentures see Woodforde, *Strange Story*, 46–48; Hyson, "George Washington's Dental History," 15; Ch[arle]s G. De Lessert, "The Origins of Spiral Springs," *British Journal of Dental Science* 13 (December 1870): 550–51.

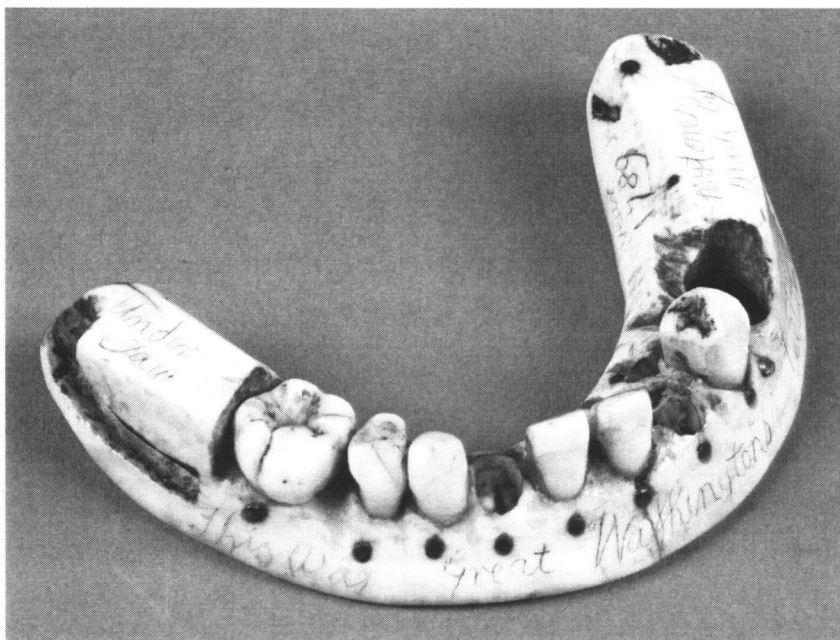


Figure 4. John Greenwood, dentures produced for George Washington, 1789. Courtesy of the New York Academy of Medicine Library.

dentist of the late eighteenth century—who, like many of his French brethren, was at the forefront of developing dental technologies. Dubois de Chémant's *Dissertation on Artificial Teeth*, published in London in 1797, gives directions for the manufacture of a set of false teeth that resemble Washington's, its two halves connected by gold springs, which are visible in the left center of the illustration (figure 5).¹³

RARE TEETH

George Washington's celebrity as the first president and the fame of his dentures have occluded the rarity of his prostheses. Tooth loss was relatively common in the eighteenth century; the donning of artificial teeth to correct this problem was extremely rare. It is impossible to estimate how many men

13. John Greenwood, advertisement, *New York Daily Advertiser*, November 10, 1790, 4. Dubois de Chémant, *A Dissertation on Artificial Teeth*. Bernard Kurdyk, "Nicolas Dubois de Chémant and the Use of Porcelain in Dental Art," *Journal of the History of Dentistry* 47, no. 3 (November 1999): 126–28.

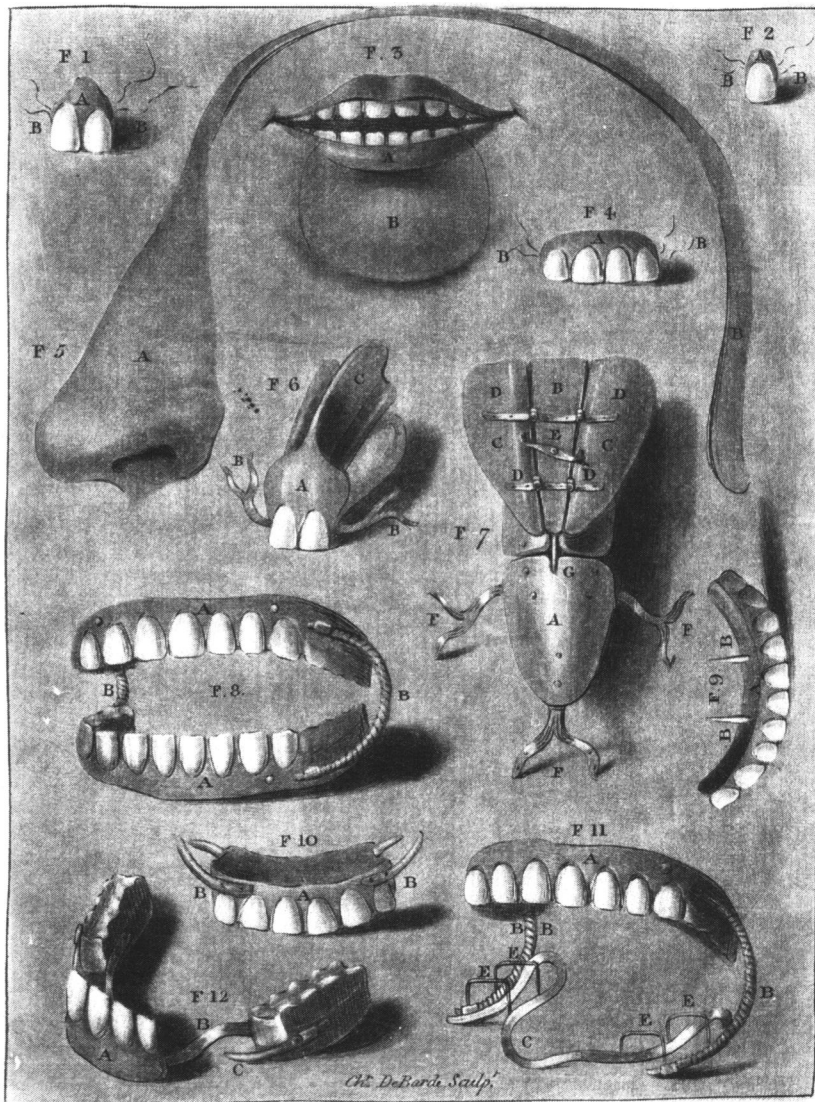


Figure 5. Engraving from Nicolas Dubois de Chémant, *A Dissertation on Artificial Teeth in General* (London, 1797). Courtesy of the Francis A. Countway Library of Medicine, Harvard Medical School.

and women in early America wore dentures. This is due in part to the absence of any exhumations of large-scale eighteenth-century Anglo-American burial sites. Because of the extensive trans-Atlantic cultural connections between early America and Great Britain, the best comparison that can be drawn is to the 1980s exhumation of the crypt underneath Christ Church in Spitalfields, London. A team of scientists from the British Museum of Natural History discovered that of the 968 Londoners buried in the crypt between 1720 and 1852, only nine individuals retained any form of artificial teeth. This small number (fewer than 1 percent of the deceased) indicates that denture consumption was limited to those of wealth and privilege.¹⁴

Artificial teeth's aura of exclusiveness is strengthened if we consider the small number of eighteenth-century dentures that have survived in museum collections, which suggests that few were manufactured. (Their relative absence may also be partially due to the fact that some wearers were buried with their dentures or their false teeth were discarded after their deaths.) Of those dentures that have entered into museums, unfortunately, most have no known provenance, and as a result, scholars can discern neither who owned them nor who manufactured them. An important exception, however, are a set of dentures that probably belonged to the Prince of Wales (later King George IV) manufactured about 1795 by Bartholomew Ruspini, a French practitioner who went to London in 1766 and became dentist to the prince. Made of hippopotamus tusks, these carved upper and lower dentures have survived in excellent condition along with an elaborate porcelain base colorfully embellished with the Prince of Wales's feathers (figure 6).¹⁵

The care and attention lavished on both the Prince of Wales's artificial teeth and their elegant base speaks to dentures' status as a luxury good. The

14. D. K. Whittaker and A. S. Hargreaves, "Dental Restorations and Artificial Teeth in a Georgian Population," *British Dental Journal* 171, no. 11 (December 1991): 371–76, esp. 371. Margaret Cox, *Life and Death in Spitalfields, 1700 to 1850* (Walmgate, York: Council for British Archaeology, 1996), 85–92. The low number of denture wearers may stem in part from the removal of dentures before burial; see D. K. Whittaker, "Dental Aspects of the Spitalfields Exhumations," *Dental Historian* 21 (November 1991): 30–43, esp. 38.

15. T. Anderson, S. O'Connor, and A. R. Ogden, "An Early Eighteenth-Century Denture from Rochester, Kent, England," *Antiquity* (December 2004): 78, 302, 858–64. Science Museum London, online catalog, "Brought to Life: Exploring the History of Medicine," www.sciencemuseum.org.uk/broughttolife/objects/, accessed May 12, 2014.



Figure 6. Attributed to Benjamin Ruspini, upper and lower denture set made of hippopotamus ivory, on stand, 1795. Science Museum/Science & Society Picture Library, A71861, A71862.

manufacture of artificial teeth was expensive and labor-intensive. The raw materials (ivory, human teeth, gold) were costly for manufacturers to acquire, and, for the most part, pieces had to be made to suit the individual's mouth and his or her specific tooth loss. The price of artificial teeth meant not only that their use was restricted to the wealthiest Britons and Americans, but also that they were significant purchases even when considered alongside other luxury goods. George Washington paid John Greenwood \$60.00 for manufacturing a pair of dentures in February 1795. By comparison, in May 1796 he paid only \$25.00 for a pair of silver-plated candlesticks

retailed by a local silversmith in Philadelphia. These candlesticks, with their architecturally inspired bases, represented the newest neoclassical taste and were intended for his dining table. If Washington commissioned six pairs of dentures over the course of his lifetime (as dental historians have estimated), then he spent approximately \$360.00 on his dentures alone, not including the costs of repairs, which seem to have been around \$20.00 per alteration (slightly less than his candlesticks). This \$360.00 total constitutes a surprisingly large portion of Washington's expenditures; for example, in February 1797 Washington paid the Philadelphia cabinetmaker John Aitken a little over \$400 for two dozen chairs and two sideboards, expensive pieces in the neoclassical style that would make up the bulk of the furniture displayed in Washington's grandiose New Room at Mount Vernon.¹⁶

Washington's dentures marked him as a member of elite polite circles that spanned the Atlantic world; just as his silver-plated candlesticks were consistent with those purchased by wealthy Londoners, so too were the general's dentures. For instance, one denture wearer among the exhumed at Spitalfields, the wealthy landowner and barrister Charles Shaw Lefevre (d. 1823) wore a device reminiscent of Washington's: an upper and lower gold-plated denture composed of human teeth with coiled gold wire springs.¹⁷ Yet, ironically, although those other luxury goods that linked polite early Americans to their British peers were intended to draw attention, artificial teeth were instead meant to fade from view. In donning his teeth, Washington hoped that others would be unaware of the fact that he wore them. Dentures' uniqueness as a consumer good, a luxury, and a prosthesis raise questions of their use. What impairment did artificial teeth restore? Why did George Washington wear these expensive dentures?

16. For dentures' rarity see N. Powers, "Archaeological Evidence for Dental Innovation: An Eighteenth-Century Porcelain Dental Prosthesis Belonging to Archbishop Arthur Richard Dillon," *British Dental Journal* 201 (2006): 459–63. George Washington to John Greenwood, January 20, 1797, collection of the Royal London Hospital Archives and Museum. For dental historians' estimate, see Hyson, "George Washington's Dental History," 2. For the silver-plated candlesticks Washington purchased from the Philadelphia silversmith Rowland Parry, see Carol Borchert Cadou, *The George Washington Collection: Fine and Decorative Arts at Mount Vernon* (Hudson Hills, N.Y.: Hudson Hills Press, 2006), 162. For the John Aitken furniture, see Cadou, *George Washington Collection*, 182.

17. For Charles Shaw Lefevre's dentures, see Whittaker and Hargreaves, "Dental Restorations," 372; Whittaker, "Dental Aspects," 40. Only the lower partial denture survives.



Figure 7. Plateau, ca. 1789, with porcelain figurines, ca. 1793–97, and Washington dining goods on display in the Donald W. Reynolds Museum and Education Center. Courtesy of George Washington's Mount Vernon, W-105/A–E.

PUTTING DENTURES TO USE

The handicap occasioned by tooth loss at first appears obvious: it prevents mastication. Washington's artificial teeth thus seem practical: they allowed him to chew food. Indeed, one imagines that restoring this function would be especially important for Washington, who saw dining as a key means of establishing his presidential image. To that end, he furnished his New York and Philadelphia presidential mansions with fashionable dining equipment that facilitated highly staged extravaganzas, including an almost twelve-foot-long mirrored plateau and several neoclassical porcelain figurines from France (figure 7). This set, perhaps accompanied by his silver-plated candlesticks, constituted a stylish centerpiece for the many dinners the Washingtons hosted for foreign ambassadors and state officials.¹⁸ Perhaps

18. For the mirrored plateau as well as the figurines, see Cadou, *George Washington Collection*, 127, 140–43. For the importance that Washington placed on dining, see Carol Borchert Cadou, “‘An excellent table’: The Art of Dining at Mount Vernon,” in Stephen A. McLeod, ed., *Dining with the Washingtons: Historic Recipes, Entertainment, and Hospitality from Mount Vernon* (Mount Vernon, Va.: Mount Vernon Ladies' Association, 2011), 59–76.

surprisingly, however, eighteenth-century dentures—particularly full sets of dentures with springs—were extremely difficult to wear when eating; many practitioners advised against such use, directing patients that their dentures were “so contrived as to be taken out in eating-time.” Spring-loaded sets stayed in place vertically, but did not allow for much lateral jaw movement. Despite John Greenwood’s claims in his newspaper advertisement that his dentures were “fixed with springs in such a manner as to permit the teeth to act with every motion of the jaw, both horizontal and perpendicular, not causing the least pain or uneasiness,” the reality was that spring-loaded dentures popped out easily, especially if the wearer attempted to move his or her jaw vigorously.¹⁹

A humorous incident that the artist Charles Willson Peale experienced makes the inconvenience of dining with dentures clear. Peale was visiting Washington, D.C., in the spring of 1804 and accepted an invitation to dine with James and Dolley Madison. The artist described how he was seated at dinner with the Madisons when his artificial teeth suddenly broke. An inventor who manufactured dentures himself, as well as a portraitist, Peale instantly “thought of a Gunsmith who had shop about ½ a mile distant” and “hastened to him to get the use of his tools.” Riveting in a “new piece,” he was able to return to the “company in about ½ an hour.” Yet, Peale noted, “ever since this accident I have kept a spare set in my Pocket” so that in case “the springs giv[e] . . . way I can instantly change my teeth.” One wonders if anything similar occurred to the first president.²⁰

Despite the difficulty of masticating with dentures, George Washington,

19. For the difficulty of eating with full dentures, see Woodforde, *Strange Story*, 49; Hyson, “George Washington’s Dental History,” 85–87; Hiram, “Dental Treatment,” 29. Frederick Hoffman, *Treatise of the Teeth: Their Disorders and Cure* (London, 1753), quoted in Mark Blackwell, “‘Extraneous Bodies’: The Contagion of Live-Tooth Transplantation in Late-Eighteenth-Century England,” *Eighteenth-Century Life* 28, no. 1 (Winter 2004): 26. John Greenwood, advertisement, *New York Daily Advertiser*, October 11, 1790, 4.

20. *The Selected Papers of Charles Willson Peale and His Family*, vol. 2, *The Artist as Museum Keeper, 1791–1810*, ed. Lillian B. Miller et al. (New Haven: Yale University Press, 1988), pt. 1: 693–94. For Peale’s attempts to produce porcelain teeth in the 1820s, see *The Selected Papers of Charles Willson Peale and His Family*, vol. 4, *Charles Willson Peale: His Later Years, 1821–1823*, ed. Lillian B. Miller et al. (New Haven: Yale University Press, 1996), 139–41. For Peale’s interest in mechanical contrivances of all kinds, see Sidney Hart, “‘To increase the comforts of Life: Charles Wilson Peale and the Mechanical Arts,” in Lillian B. Miller and David C. Ward, eds., *New Perspectives on Charles Willson Peale* (Pittsburgh: University of Pittsburgh Press, 1991), 237–65.

like Charles Willson Peale, elected to wear his artificial teeth at meals and during the inevitable toasts that followed. Washington's dentist, John Greenwood, lamented this decision, cautioning his famous patron that the president's prostheses were "very Black Ocationed by your soaking them in port wine, or by your drinking it," a discoloration which would eventually corrode the ivory and bone surfaces. Washington may have worn his dentures at meals, but, unlike Charles Willson Peale, he did not attempt to eat normally. Rather, he restricted his public food intake to minimize the chance that they would break. Senator William Maclay of Pennsylvania, one of the Washingtons' many dinner guests, noted the president's evident dissatisfaction with this arrangement, describing how at meals "the President seemed to bear in his countenance a settled aspect of melancholy. . . . At every interval of eating and drinking he played on the table with a fork or knife, like a drumstick."²¹

If the president's false teeth did not restore his ability to chew, then why did Washington go to such great effort and expense to obtain them? One answer lies with their ability to improve speech. Whereas artificial teeth afforded little help at meals, they offered significant aid in speaking. John Hunter, a dentist, warned, "People who have lost all their Teeth . . . lose, in a great measure, their voice." Dubois de Chémant agreed, describing how "They cannot make any distinct and perfectly articulated sound, and it often happens, that what they wish to express cannot be comprehended. . . . [T]he words and syllables are indistinctly pronounced, and slurred, or run into one another." Tooth loss, then, produced not one physical handicap, but two: the inability to masticate food and the loss of one's speech.²²

For politicians such as Washington this impairment was debilitating. In the midst of what the historian Jay Fliegelman has labeled an oratorical revolution, Washington could not be deprived of his voice. As the new president of the newly united states, such a vocal handicap would have compromised Washington's ability to lead. Moreover, to communicate effectively the president not only had to speak, but needed to speak well, as

21. John Greenwood to George Washington, December 28, 1798, in *Papers of George Washington Digital Edition*. Greenwood followed common medical knowledge in giving Washington this advice. See, for example, Thomas Berdmore, *A Treatise on the Disorders and Deformities of the Teeth and Gums* (London, 1768), 212. William Maclay, *The Journal of William Maclay, United States Senator from Pennsylvania, 1789 to 1791*, ed. Edgar S. Maclay (New York: D. Appleton, 1890), 206, available at <http://memory.loc.gov/ammem/amlaw/lwmj.html>, accessed January 13, 2013.

22. John Hunter, *The Natural History of Human Teeth* (London, 1771), 118. Dubois de Chémant, *Dissertation on Artificial Teeth*, 8.

elocution manuals such as John Drummond's *The Art of Reading and Speaking in Public* (1780) described. Drummond broke down the ways that orators should convey different conditions or emotions. To communicate courage required that "The accents are strong, full-mouthed and articulate, the voice firm and even." To have "accents through defaults of the teeth" made one "scarcely intelligible" and conveyed "DOTAGE" or "infirm Old age," neither of which Washington would want to impart. But the donning of dentures, as their manufacturers assured, restored the user's voice. Dentures enabled the wearer to articulate more clearly and to project with greater force. As Paul Revere highlighted in his advertisement in the *Boston Gazette*, those who had lost "their Fore-Teeth . . . to their great Detriment . . . [in] Speaking, both in public and private" could "have them replaced" with dentures that "answer[ed] the End of Speaking, to all Intents." John Greenwood also reassured customers that his artificial teeth "render the pronunciation more agreeable and distinct." Greenwood's dentures facilitated Washington's speech as he took the oath of office and gave his inaugural addresses, restoring "strength and clearness of the sound of the voice."²³

Of course, dentures may not have enabled speech that was identical to the user's previous voice. Dentists studying Washington's prostheses have concluded that the president struggled to pronounce sibilants (such as *s*'s) as well as multisyllabic words. Furthermore, they have speculated that Washington's second inaugural speech (less than a page in length) and his famously taciturn demeanor in the presidential years may have stemmed from the difficulty of speaking with dentures. Certainly, some listeners criticized the president's artificially enhanced speech. Senator William Maclay lamented in 1791, "His voice [was] hollow and indistinct, owing, as I believe, to artificial teeth." Yet, as dentists would have been quick to point out, the fact that Washington could speak in public at all was a testament to the effectiveness of their craft.²⁴

23. Jay Fliegelman, *Declaring Independence: Jefferson, Natural Language & the Culture of Performance* (Stanford: Stanford University Press, 1993). John Drummond, *The Art of Reading and Speaking in Public* (Edinburgh, 1780), 21, 29. Paul Revere, advertisement, *Boston Evening-Post*, September 5, 1768, 3. John Greenwood, advertisement, *New York Daily Advertiser*, March 18, 1786, 3.

24. Sognnaes, "Dental 'Fingerprints,'" 135. For recent articulations of this argument, see Michael Beschloss, "George Washington's Weakness: His Teeth," *New York Times*, April 28, 2014, www.nytimes.com/2014/04/29/upshot/george-washingtons-weakness-his-teeth.html?_r=0, accessed May 14, 2014; Allan Metcalf, *Presidential Voices: Speaking Styles from George Washington to George W. Bush* (Boston: Houghton Mifflin, 2004), 7–8. William Maclay, *Journal of William Maclay*, 375.

RESTORING THE ORNAMENTS OF THE MOUTH

Washington's teeth restored his voice, yet perhaps their most significant role was in the realm of aesthetics. Washington's prostheses corrected a bodily loss that his peers considered to be disfiguring, inimical to genteel behavior, and indicative of poor character. Dentists consistently stressed teeth's aesthetic importance as the "primary ornament of the mouth." Dubois de Chémant allowed that "Among the number of charms which constitute perfect beauty, . . . the eyes, commonly called the mirror of the soul, are justly considered holding the first rank"; but, he claimed, "the teeth, which may be called the index of health, appear to have a similar prerogative, and to be reckoned among the advantages which more particularly attract notice." As dentists urged, the ideal was to have "clean well-arranged teeth" that were "white as ivory." Such teeth, furthermore, should be surrounded by pink gums, which—the dentist to the Prince of Wales, Bartholemew Ruspini, reminded his readers—"contribute very much to the ornament of the mouth, for as these are of a vermilion cast, and form a kind of crescent . . . around the enamel of each tooth; they set off in a more elegant manner the whiteness of the teeth."²⁵

On the other hand, dentists' advertisements labeled those blackened teeth that had to be pulled "mortifying and disagreeable," deviating as they did from the standard of a white, even, and above all complete set. Dubois de Chémant even employed the term *deformity* to refer to tooth loss. By adopting the same language that contemporaries used to refer to physical handicaps such as missing limbs, lameness, or a severely hunched back, Dubois de Chémant equated loss of teeth with other, more commonly accepted notions of physical handicap. Indeed, the dentist assured readers that either "the entire or [even] partial loss of our teeth" constituted a "real deformity." He was not alone. Hugh Moises, author of *An Appendage to the Toilet* (1798), admonished his readers, "It is the duty of a professional [dentist] . . . to rescue from disease and deformity the features of his fellow creatures." Dentists' framing of tooth loss as a deformity fits with larger ideas about physical lack and poor morality that were common in the eighteenth-century British Atlantic world. Historians of disability have noted that to period viewers physical handicap signaled moral lack. In medical texts and

25. Dubois de Chémant, *Dissertation on Artificial Teeth*, 5–8. *Daily Courant* (London), December 30, 1717, quoted in Woodforde, *Strange Story*, 42. Bartholemew Ruspini, *A Treatise on the Teeth* (London, 1768), 28. J. C. Lavater, *Essays on Physiognomy*, trans. Thomas Holcroft, 3 vols. (London, 1789), 3:195–96. Blackwell explores Lavater's comments more fully; see "'Extraneous Bodies,'" 27.

politeness manuals, authors maintained that “defects and deformities” were a curse, a manifestation of evil, or the result of sustained ill behavior.²⁶

Well schooled in viewing a person’s character through the exterior clues provided by his or her physiognomy, eighteenth-century observers judged tooth loss to be an indicator of immorality caused by a lack of personal control. As readers of the *Lady’s Toilette* were reminded, “the mere sight of the teeth is capable of giving us a perfect insight into the character of a person, and . . . foul teeth announce vulgar sentiments.” Tooth decay could be attributed to an array of unflattering vices. It might stem from gluttony, the ingestion of too many sugary foods; poor dental hygiene, allowing “particles of food that stick betwixt the teeth and putrify,” or “the excessive use of smoking and chewing tobacco”—all of which showed an absence of personal discipline. Even more damningly, tooth loss might indicate syphilis, commonly treated with mercury, which caused the teeth to decay. In the eighteenth-century popular imagination, syphilis was a punishment for lascivious desires that had not been properly channeled.²⁷

One of the most socially debilitating features of physical handicaps was that they kept people from participating in genteel rituals and therefore fully assuming the mantle of members of polite society. It was difficult to engage in polite dances, such as the minuet, or to bow in deference if one was missing a limb or bent over from a hunched back. The loss of teeth was especially galling in this respect. As the dentist Thomas Berdmore reminded readers in his *Treatise on the Disorders and Deformities of the Teeth and Gums*: “above all the art of pleasing in conversation and social life, are matters of the highest concern to individuals. But in these no one can excel” who has suffered “loss of Teeth.” Not only did the “smell imparted to the breath by dirty . . . rotting Teeth” prove “offensive to others in close conversation,” but, Berdmore warned, tooth loss ultimately destroyed “the happy

26. Dubois de Chémant, *Dissertation on Artificial Teeth*, 8. Hugh Moises, *An Appendage to the Toilet* (London, 1798), 2–3. Isaac Greenwood, advertisement, *United States Chronicle*, January 24, 1788, 4–5. For attitudes toward disability in the eighteenth century, see Roger Lund, “Laughing at Cripples: Ridicule, Deformity and the Argument from Design,” *Eighteenth-Century Studies* 39, no. 1 (2005): 91–114; Christopher Gabbard Dwight, “Disability Studies and the British Long Eighteenth Century,” *Literature Compass* 8, no. 2 (February 2011): 80–94.

27. For the link in eighteenth-century Great Britain among dental health, morality, and politeness, as well as the reasons commonly given for tooth decay, see Blackwell, “Extraneous Bodies,” 25–28. William Hay, *Deformity: An Essay* (London, 1754). Auguste Caron’s *Lady’s Toilette* (London, 1808) is quoted in Blackwell, “Extraneous Bodies,” 27. Ruspini, *Treatise on the Teeth*, 2–3, 49.

expression of the countenance,” thus proving an impediment to the “art of pleasant conversation” and by extension the practice of gentility. Bodily losses such as those Washington endured rendered his own politeness suspect and difficult to attain. If shared by enough other men, such failures could compromise Americans’ project in the years after the Revolution to establish a polite male citizenry that was capable of self-governance. When viewed against the backdrop of disability, republicanism can be recognized as requiring men’s bodily completeness as well as an ethos of civility. With republicanism these two needs went hand in hand, and tooth loss compromised both.²⁸

For those observers who studied the teeth as a means to assess character, Washington’s dental state was disastrous. General George Mercer, who served as Washington’s aide in the Virginia Regiment, noted as early as 1760 that the general’s “mouth . . . discloses some defective teeth.” Though blackened or missing teeth posed a significant difficulty for any person who wanted to assume a genteel demeanor, for George Washington his teeth presented an even greater hazard. Because Washington was commander of the Continental Army and then the first president, his body became the exemplar of all newly republican bodies. Represented in sculpture and replicated in paint for hundreds of eager consumers, his particular body was one that, as James Madison described, united “the Endowments of the Hero with the Virtue of the Patriot.”²⁹

Washington was keenly aware of how important it was for him to embody the presidency for the new nation and cognizant that any signs of deformity in his own body might be regarded as a weakness or deficiency in the republican experiment. Simply stated, Washington was the nation. Just as Washington’s graceful bodily carriage and understated black velvet suit

28. Berdmore, *Treatise on the Disorders*, 4. Richard L. Bushman, *The Refinement of America: Persons, Houses, Cities* (New York: Knopf, 1992). For more on the ways that prostheses were called on to restore virility and masculinity in the early republic, see Jennifer Van Horn, *Civility in a New World: Material Culture and the Making of America* (Chapel Hill: University of North Carolina Press, 2016, forthcoming), chap. 6.

29. George Mercer’s comment about Washington’s teeth is quoted in Douglas Southall Freeman, *George Washington: A Biography*, 7 vols. (New York: Charles Scribner’s Sons, 1948–1957), 3:6. For James Madison’s inscription for the base of Houdon’s statue made for the Virginia State Capitol building, see Tracy Kaminer and Scott W. Nolley, “Rediscovering an American Icon: Houdon’s Washington,” *Colonial Williamsburg Journal* (Autumn 2003), www.history.org/foundation/journal/autumn03/houdon.cfm, accessed June 14, 2011.

proclaimed his presidential practice of virtue, so too did his dentures. Especially during the presidential years, his false teeth reassured onlookers that Washington's control was unparalleled and uncompromised; he had not fallen prey to the heady promises of monarchy and the potential for debauchery that lurked within unlimited power and that could compromise the new republic.³⁰

Because Washington was America's leader, his dental health also bore great significance for an international audience. European naturalists and travelers had long maintained that North Americans had defective teeth, which "generally decay[ed] at an untimely period than those of Europeans," as Timothy Wright recorded in his travelogue of New England in 1815. The natural historian Peter Kalm noted in his 1748 visit to America, "Girls not above twenty years old frequently had lost half their teeth, without any hopes of getting new ones." Kalm and other scientists identified a variety of causes. The first was North America's temperature extremes. Dentists preached that teeth could be harmed by cool climates and shifts in temperature, instructing readers to avoid "the different impressions of air, all shocks given to the teeth, which affect the nerves[;] . . . keeping the head uncovered and exposed to the air; sleeping bareheaded." Environmental factors were not solely to blame, however. Peter Kalm also cited "the great quantities of fruit and sweetmeats which are eaten here," as well as the "frequent use of tea" with sugar, as contributing to Americans' "pittifully Tooth-shaken" state. This kind of national moral failing writ individual temptation at the scale of the entire nation. Given the decayed state of Washington's teeth, the concealment that his dentures offered became important for establishing national character.³¹

30. For Washington's bodily control see especially Joseph J. Ellis, *His Excellency: George Washington* (New York: Knopf, 2004), 272–75. For Washington's attempts to shape his own presidential image, see Paul Staiti, "Gilbert Stuart's Presidential Imaginary," in Maurie D. McNis and Louis P. Nelson, eds., *Shaping the Body Politic: Art and Political Formation in Early America* (Charlottesville: University of Virginia Press, 2011), 169–74.

31. Timothy Dwight, *Travels in New England and New York*, 4 vols. (London: William Baynes and Son, 1823), 4:450. Pehr [Peter] Kalm, *Travels into North America*, 3 vols. (London, 1770) 1:361–63. John Josselyn, *An Account of Two Voyages to New-England Made during the Years 1638, 1663* (Boston: William Veazie, 1865), 142; online facsimile edition available at "American Journeys," www.americanjourneys.org/aj-107/, accessed June 7, 2014. Interestingly, both Josselyn and Kalm thought that the problem affected women more commonly than men. For North Americans' poor teeth, see Goler, *Healing Arts*, 42; Forbes, *Paul Revere*, 128–29. For causes of tooth loss see Ruspi, *A Treatise on the Teeth*, 49.

DECEPTIVE DENTURES

The stakes were high. Yet, one may wonder, how well could artificial teeth that looked like these actually hide Washington's dental condition? Perhaps their most effective tool was their sheer rareness. Washington's method of covering the exterior ridge of his ivory dentures with red wax also helped. So too did his common practice—shared with other polite persons—of keeping his mouth closed when not speaking. Even for those who knew Washington's condition well, however, there is good evidence that his dentures created an illusion of bodily completeness. Eliza Parke Custis, Washington's granddaughter, found them to be quite effective. On a pastel portrait of her grandfather, completed by James Sharples around 1796, she inscribed her recollection that the image was “an exact likeness. . . . He had artificial teeth but so well fixed, that they did not disfigure his mouth.”³² Indeed, the president's teeth proved so successful in hiding his deformity that in his phenomenally successful work *Essays on Physiognomy* Johann Lavater not only reproduced an engraving of a portrait of Washington by Gilbert Stuart, but also applauded the president as a physiognomic specimen of republican virtue. Lavater rhapsodized, “everything in this face announces the good man, a man upright, of simple manners, sincere, firm, reflecting and generous.” The dentures worked.³³

Washington's prostheses temporarily corrected his tooth loss, but to do so they relied on a strategy that republicans deemed to be dangerous: deception. In their advertisements dentists frequently praised dentures' *trompe l'oeil*, or fool-the-eye, qualities. They assured readers not only that artificial teeth would be as comfortable as their real teeth, but that they would appear the same. As Paul Revere proclaimed in a 1768 *Boston Gazette* advertisement, his dental prostheses “look[ed] as well as the Natural [teeth].” John

32. Eliza Parke Custis, quoted in “George and Martha Washington: Portraits from the Presidential Years,” National Portrait Gallery, Smithsonian, available at www.npg.si.edu/exh/gw/gwsharp.htm, accessed October 2013. The pastel portrait is now in the collection of the National Portrait Gallery, Smithsonian. For Washington's order of “colored sealing wax” to tint the gums of his ivory artificial teeth from Major Andrew Billings of Poughkeepsie, N.Y., see Hyson, “George Washington's Dental History,” 11.

33. For physiognomy in America see Christopher J. Lukasik, *Discerning Characters: The Culture of Appearance in Early America* (Philadelphia: University of Pennsylvania Press, 2011); James Parsons, *Human Physiognomy Explain'd: In the Crounian Lectures on Muscular Motion. For the Year MDCCXLVI* (London: C. Davis, 1747). Lavater's description of Washington is quoted in “George Washington, a National Treasure,” National Portrait Gallery, Smithsonian, www.georgewashington.si.edu/portrait/face.html, accessed January 10, 2013.

Greenwood, too, reported to readers that he substituted “artificial teeth in so neat a manner as not to be perceived from the natural.” Others promised that their dentures were unable to “be discovered by the sharpest Eye.” Certainly manufacturers had an incentive to heighten their dentures’ visual appeal in their advertisements, but in their medical texts dentists too stressed artificial teeth’s ability to fool onlookers. Mayer Lewis, in his *Essay on the Formation and Structure and Use of the Teeth* (1772), assured his readers, “Indeed to such a pitch of greatness has the art and ingenuity of modern times arrived, that operators can make [false teeth] . . . in such a manner as not to be discernible from our natural teeth.” Thomas Berdmore went so far as to explicitly equate his teeth with *trompe l’oeil*. He introduced his readers to “an artificial set of Teeth, carved, and stained at the lower edge, to represent the healthy gums” and assured them that “The deception is certainly good, and answers the purpose so well, that nobody in common conversation can distinguish the *artificial* from the *natural*.” Washington’s lower denture now in the National Museum of Dentistry suggests the pains that dentists took to make their dentures as realistic as possible. As was the case with those that Berdmore described, the portion of the ivory carved to look like gums is rougher and less polished than the portion made to resemble teeth. It still bears evidence of a pinkish cast, perhaps tinted by the dentist or by Washington’s red wax (see figure 3).³⁴

The strategies of concealment that shaped dentists’ production of early American dentures found equal measure in wearers’ efforts to hide their use of prostheses. George Washington attempted to limit the number of people who knew about his tooth loss, not wanting to “make a parade of it,” as he informed one correspondent. He marked a letter to John Greenwood, for instance, across the back, “For Mr Jno. Greenwood and to be opened by him only.” This strategy famously failed when Sir Henry Clinton, commander of the British army in North America, intercepted one of the president’s letters about his teeth.³⁵

34. Gordon S. Wood, “Conspiracy and the Paranoid Style: Causality and Deceit in the Eighteenth Century,” *William and Mary Quarterly* 39, no. 2 (1982): 401–41. Wendy Bellion, *Citizen Spectator: Art, Illusion, & Visual Perception in Early National America* (Chapel Hill: University of North Carolina Press, 2011). Paul Revere, advertisement, *Boston Evening-Post*, September 5, 1768, 3. John Greenwood, advertisement, *New York Daily Advertiser*, March 18, 1786, 3. John Baker, advertisement, *New-York Gazette and the Weekly Mercury*, May 16, 1768, 4. Mayer Lewis, *An Essay on the Formation and Structure and Use of the Teeth* (London, 1772), 36. Berdmore, *Treatise on the Disorders*, 21; emphasis in original.

35. George Washington to William S. Smith, May 15, 1783, in “The George Washington Papers at the Library of Congress, 1741–1799,” <http://memory.loc>

Charles Willson Peale's experiences with his dentures give further insight into the connections between denture wearing and the larger practices of deception and discernment then at play in early American culture. The artist claimed that when his dentures failed, he had "often . . . changed . . . Teeth while at Table without the Company Observing what I was about by holding a hankerchief before my mouth [so] it might be supposed I was picking something from my teeth." Peale's use of his napkin to conceal his application of dentures implicates his bodily practice of wearing a prosthesis with his own (and his vast progeny's) simultaneous artistic efforts at deception. Specifically, the napkin reminds us of the textile that Peale's son Raphaelle included in his famous work *Venus Rising from the Sea—A Deception*, painted around 1822 (figure 8). Although now identified as a kerchief, a textile worn around the neck, the white cloth closely resembles a table napkin and was long thought to be one. In 1947 Peale's relative Charles Coleman Sellers recounted the family legend that the depicted cloth was based on one of Martha Peale's (Raphaelle's wife's) "best linen napkins." Her husband had supposedly painted the work to trick her into attempting to pull the napkin away from the canvas (at which he succeeded). Sellers's account is probably apocryphal, yet it brings together a table napkin and deception in a way that recalls Charles Willson Peale's anecdote about his dentures.³⁶

As scholars have noted, Raphaelle's painting, which appears to be a copy of James Barry's work *The Birth of Venus* (a female nude) covered by a white cloth, deceived precisely because it recalled his father's practice of draping textiles over salacious or overly emotional paintings. Charles Willson Peale's intention was to warn viewers of an artwork's unsettling content, most famously Peale's own portrait of his wife mourning over their dead child's corpse, which he kept covered in his museum. The elder Peale's use of a

.gov/ammem/gwhtml/gwhome.html, accessed June 12, 2014. Washington inscribed this on his letter to John Greenwood, December 7, 1798, *Papers of George Washington Digital Edition*. For the interception of Washington's letter to his dentist John Baker by the British army, see Weinberger, *History of Dentistry*, 2:85–86, 300; "Trouble with Teeth," George Washington's Mount Vernon, www.mountvernon.org/georgewashington/teeth, accessed June 7, 2014.

36. *Selected Papers of Charles Willson Peale*, vol. 2, pt. 1, 693–94. Charles Coleman Sellers, *Charles Willson Peale*, vol. 2, *Later Life, 1790–1827* (Philadelphia: American Philosophical Society, 1947), 390. Lauren Lessing and Mary Schafer, "Unveiling Raphaelle Peale's *Venus Rising from the Sea—A Deception*," *Winterthur Portfolio* 43, nos. 2/3 (Summer/Autumn 2009): 229–59; see p. 247 in this article for the reattribution of the napkin as a kerchief.



Figure 8. Raphaelle Peale (American, 1774–1825), *Venus Rising from the Sea—A Deception*, ca. 1822. Oil on canvas, 29¹/₈ x 24¹/₈ in. (74 x 61.3 cm). Courtesy of the Nelson-Atkins Museum of Art, Kansas City, Missouri. Purchase: William Rockhill Nelson Trust, 34–147. Photo by Jamison Miller.

napkin to drape his face at the table, then, bears significant similarities with the deception his son perpetrated. Perhaps Charles Willson Peale viewed his tooth loss and subsequent wearing of dentures as the kind of emotionally startling disfigurement from which he wanted to protect others. Or perhaps the artist's use of the napkin to screen his mouth was a means for Peale to

maintain gentility by hiding his disruptive dentures from others' view, as he would an off-putting painting.³⁷

Lauren Lessing and Mary Schafer's recent discovery that Raphaëlle Peale's original version of his deception consisted not of Barry's *Venus* but, rather, a copy of his father's portrait of Raphaëlle himself further implicates Peale's use of the napkin with *trompe l'oeil*. In its original guise, the painting appeared to be a napkin covering the seated artist's face and thus would have looked much like the elder Peale at dinner adjusting his prostheses. Indeed, this resemblance might have contributed to Raphaëlle's decision that the painting hit too close to home to be comfortably humorous. He selected instead to obscure his rendition of his father's painting with the *Venus*. In the importance that they place on a large, central textile, both Raphaëlle's *Deception* and Peale's dinner napkin also recall the elder Peale's large self-portrait, *The Artist in His Museum* (figure 9), an image in which Peale famously raises a prominent red drape and invites the viewer into his gallery. In this case, Charles Willson Peale welcomes the viewer's attention to his visage. Dentures (perhaps those of his own making) in place, the artist proudly lifts the curtain to reveal his public face to the world. Peale seems to celebrate his own status as a *trompe l'oeil* object, a living deception akin to the preserved and carefully arranged specimens in the cases behind him. Indeed, the large jaw and teeth of the mastodon that Peale placed on the floor to his left, and to which he points, subtly echo his own jaw and the artificial teeth placed carefully within it.³⁸

If dentures relied on deception, then how exactly did they work? Did they operate like the *trompe l'oeil* paintings that filled Peale's museum and Philadelphians' art exhibitions in the years of the early republic? *Trompe l'oeil* paintings deceived by pretending to be something they were not, and dentures similarly deceived in that they made it appear that the wearer had

37. Dorinda Evans, "Raphaëlle Peale's *Venus Rising from the Sea*: Further Support for a Change in Interpretation," *American Art Journal* 14 (Summer 1982): 62–72. David C. Ward and Sidney Hart, "Subversion and Illusion in the Life and Art of Raphaëlle Peale," *American Art* 8, nos. 3/4 (Summer/Fall 1994): 97–121. Alexander Nemerov, *The Body of Raphaëlle Peale: Still Life and Selfhood, 1812–1824* (Berkeley: University of California Press, 2001), 189–201. Bellion, *Citizen Spectator*, 315–27.

38. For Raphaëlle's substitution of the *Venus* for his portrait, see Lessing and Shafer, "Unveiling Raphaëlle Peale's *Venus*," 250–52. For Charles Willson Peale's self-portrait, see especially Roger B. Stein, "Charles Willson Peale's Expressive Design: *The Artist in His Museum*," *Prospects* 6 (October 1981): 139–85. For the mastodon see Laura Rigal, *The American Manufactory: Art, Labor, and the World of Things in the Early Republic* (Princeton: Princeton University Press, 1998), 91–113.

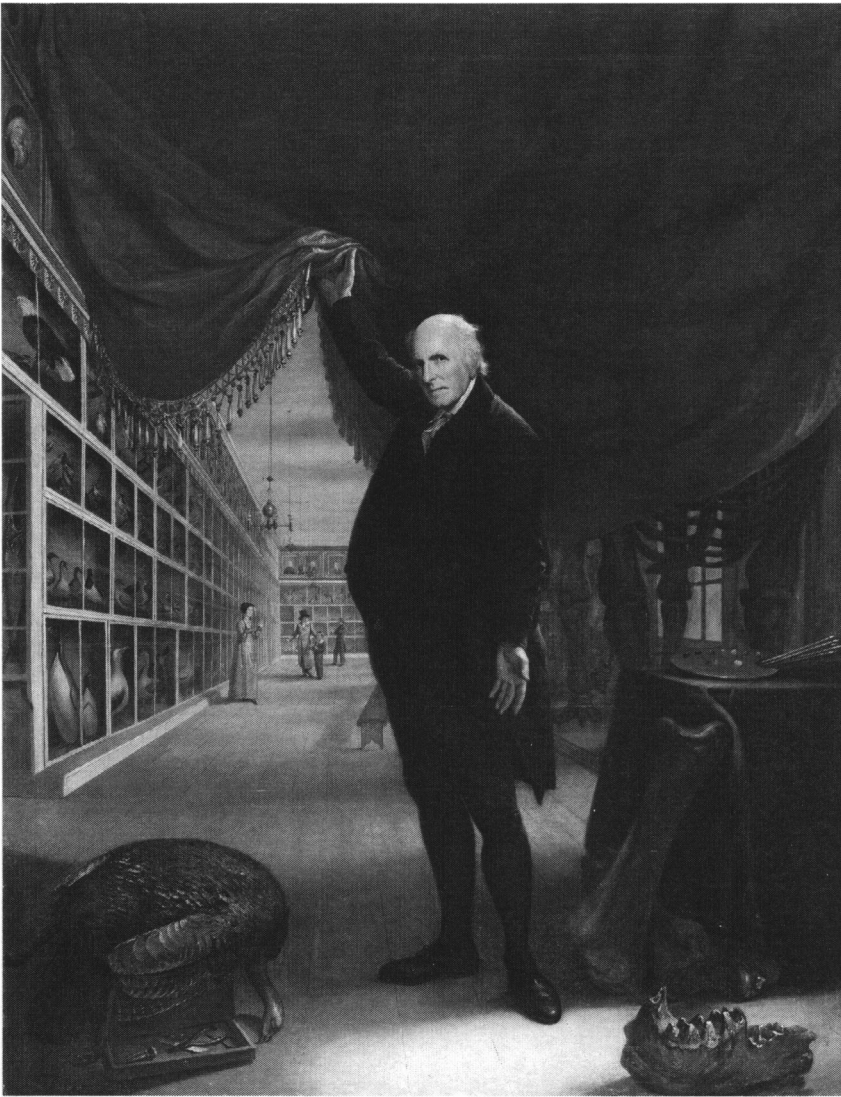


Figure 9. Charles Willson Peale (American, 1741–1827), *The Artist in His Museum*, 1822. Oil on canvas, $103\frac{3}{4} \times 79\frac{7}{8}$ in. (263.5 x 202.9 cm). Courtesy of the Pennsylvania Academy of the Fine Arts, Philadelphia. Gift of Mrs. Sarah Harrison (the Joseph Harrison, Jr., Collection), 1878.1.2.

teeth he or she did not possess. Raphaele Peale's deception presented a two-dimensional canvas as if it were a three-dimensional object (a napkin or kerchief) that covered a painting. The deception consisted of making the paint appear to be something else (cloth). George Washington's dentures fooled spectators in a similar manner; ivory and lead substituted visually for teeth and gums, presenting parts of someone (and something) else as if they were the teeth of Washington. Yet dentures went beyond the creation of a two-dimensional illusion. Artificial teeth deceived because they presented an external commodity (the dentures) in the place of what all who saw them imagined to be a natural and unchangeable part of the person. Dentures substituted a different life story for the president's own, allowing him to claim a dental history that was not his; an external commodity that Washington purchased now stood in for his reputation.³⁹

The art historian Wendy Bellion has illuminated the ways that *trompe l'oeil* paintings and other visual and material deceptions allowed citizens in the early republic to hone their skills of looking and ultimately to cultivate skills of discernment that they applied as citizens: ferreting out injustices, holding their political leaders to their promises, and catching acts of counterfeiting. Americans' inability to penetrate the deception posed by Washington's dentures, then, might constitute a failure of discernment. I would posit instead that what the dentures represent is the complex role that concealment played in the republican ethos, especially when it came to disability. While republicans touted transparency and the need for natural actions and thought, at the same time they placed their faith in imitation and in artifice: the ability of republican citizens to improve and to change to meet ideals of behavior. In the case of bodily lack the endgame for deception was not discernment or recognition—as Bellion argues was the case for *trompe l'oeil* paintings—but in fact the legitimate hope that others would fail to discern a change or see what was not there. In this case artifice made visible what should have been present but was missing.⁴⁰

39. Susan Stewart, *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection* (Durham: Duke University Press, 1993), 154–59. For the anxieties attendant on replacing a part of the human body with a consumer good, see Blackwell, “‘Extraneous Bodies’”; Michael Kwass, “Big Hair: A Wig History of Consumption in Eighteenth-Century France,” *American Historical Review* 111, no. 3 (2006): 631–59.

40. For Bellion's argument about the functions of *trompe l'oeil* in the early republic, see her *Citizen Spectator*, 14, 64, 81, 87. James W. Cook, *The Arts of Deception: Playing with Fraud in the Age of Barnum* (Cambridge: Harvard University Press, 2001).

The president's commitment to projecting the image of the ideal republican led him to adopt a series of deceptive prostheses. Washington knew that his tooth loss presented his character in an unflattering light, and he worked hard to conceal from others both his physical failing as well as his donning of dentures. Washington's dentures thus reveal the tensions between the republican leader who performed civility and the strategies of concealment he employed to forge that persona. Dentures bridged the gap between the genteel ideal and flawed physical reality, and consequently they enabled Washington to assume his role within the republic.

In light of this partial admission of deception's positive potential, Washington's own attitudes toward *trompe l'oeil* paintings, those visual traps that required the viewer to pierce deception, becomes more understandable. The famous (and perhaps apocryphal) story related by Rembrandt Peale, another of Peale's sons, describes how Rembrandt witnessed President Washington being fooled by Charles Willson Peale's famous work *The Staircase Group* (figure 10). Washington mistakenly perceived two figures mounting a staircase (one of whom was the young Raphaelle), rather than recognizing that what he actually saw was a painted canvas installed behind a wooden step. As Rembrandt recalled, the president "bowed politely to the painted figures, which he afterwards acknowledged he thought were living persons." Washington supposedly encountered the work at Peale's museum in Philadelphia some time in the 1790s. At this point, of course, Washington himself, like Charles Willson Peale, was a kind of living *trompe l'oeil* who perpetuated a kind of artifice similar to the deception before him in the *Staircase Group*. The president's credulity, or rather his decision to be deceived, may indicate his hope that others would be similarly willing to suspend their discernment for the sake of politeness. Better to bow in error to a painted canvas than to forsake the rituals of gentility. Indeed, Rembrandt hinted at this position in his telling of the event, hedging his tale by adding, "If this . . . homage . . . was not indicative of its [the work's] merit, it was, at least, another instance of [Washington's] habitual politeness." Like Charles Willson Peale at the dinner table switching his dentures behind his napkin, George Washington relied on deception to participate in the rituals of polite life, and he acknowledged that some degree of dissembling was necessary so that his own disability could pass unnoticed.⁴¹

41. Rembrandt Peale, "Reminiscences, by Rembrandt Peale: The Person and Mien of Washington," *Crayon* 3, pt. 3 (April 1856): 100. Wendy Bellion recounts this famous incident and also ties it to questions of the function of *trompe l'oeil* in *Citizen Spectator*, 63–64.



Figure 10. Charles Willson Peale (American, 1741–1827), *Staircase Group* (*Portrait of Raphaelle Peale and Titian Ramsay Peale I*), 1795. Oil on canvas, 89½ x 39¾ in. (227.3 x 100 cm). Courtesy of Philadelphia Museum of Art, the George W. Elkins Collection, 1945, E1945–1-1.

THE FICTION OF ARTIFICIAL TEETH

As dentistry expanded in the early decades of the nineteenth century and more Americans were able to afford artificial teeth, the tensions between concealment and transparency that dentures embodied caused prostheses to have greater public resonance. The question of denture wearers' morality is the subject of a unique novel written by the prolific mid-nineteenth-century American author Joseph Holt Ingraham. Entitled *Caroline Archer; or, The Miliner's [sic] Apprentice* (1844), the fictitious tale—part mock epic and part morality play—is set in Philadelphia. It traces the intersecting dental histories of two young women: Caroline Archer, a poor milliner, and Emily Wharton, a rich newlywed. When Wharton loses four of her teeth (including her two front teeth) in a riding accident, she is anxious for a means to restore her beauty. A local dentist makes her a set of false teeth composed of her own broken teeth mounted on a gold-plated base that is reminiscent of Greenwood's for Washington.⁴²

Both dentist and protagonist initially declare the dentures to be a poor substitute. As the doctor explains: "Nature, madam, is the best dentist. I can never match the pearly transparency of the remaining teeth. . . . Oh what a misfortune." Aware that Wharton's vanity would not be placated by dentures, the dentist offered his wealthy patroness another solution: a live tooth transplant. This procedure involved, as the doctor describes, "extracting teeth from another's jaw and placing them with the nerve still warm in the cavities of . . . [the person's] own [mouth]." As Mark Blackwell has explored, live tooth transplants gained popularity in Great Britain in the last third of the eighteenth century as elites sought a more permanent means to replace lost teeth with healthy ones gathered from those in the poorer classes. Despite demonstrations by many detractors that the procedure was scientifically impossible and ultimately a hoax, live tooth transplants were practiced in America as well. In Boston, for example, the dentist Josiah Flagg announced in a broadside that he "Traisplants both live and dead Teeth with greater conveniency, and gives less pain than heretofore

42. J. H. Ingraham, *Caroline Archer; or, The Miliner's Apprentice: A Story That Hath More Truth Than Fiction in It* (Boston: Edward P. Williams, 1844), 9–10. For Ingraham see Paul Erikson, "New Books, New Men: City-Mysteries Fiction, Authorship, and the Literary Market," *Early American Studies* 1, no. 1 (Spring 2003): 273–312, esp. 275. For the wider interest in teeth, their whiteness, and their removal in nineteenth-century fiction, see Bridget T. Heneghan, *Whitewashing America: Material Culture and Race in the Antebellum Imagination* (Jackson: University of Mississippi Press, 2003), 155–64.

practiced in Europe or America." He concluded his advertisement with a notice: "CASH Given for *Handsome and Healthy Live TEETH* at No. 47, Newbury-Street, BOSTON (1796)." In Ingraham's tale it is, predictably, the young milliner Caroline Archer who supplies Wharton with teeth, driven to this desperate act by her family's poverty. The live tooth transplant is immediately efficacious. Indeed, upon seeing her, Wharton's husband and brother find the new teeth to be "more beautiful than those . . . [she] lost!"⁴³

Despite the success of Wharton's transplant, however, by the end of the novel it is clear that dentures offer the best solution for this physical handicap; all characters are eventually brought around to recognize false teeth's deceptive power. Once Wharton undergoes the transplant, Caroline Archer receives dentures as a replacement for her sacrificed teeth. Upon having them inserted, Archer is overcome by their verisimilitude; springing "to her feet with delight," she exclaims, "'They are like my own.'" The dentist concurs, labeling them "'*chef d'oeuvres!* Perfect! . . . Incomparable!" For the remainder of the novel, Archer's false teeth convincingly fool those around her, most notably her employer, the evil Mrs. Carvil, who had threatened to fire Archer from her millinery shop if she sold her teeth and remains unaware that she had done so. Moreover, in an ironic plot twist, Caroline Archer's job as a milliner brings her to the attention of Emily Wharton's brother, Frank, who eventually proposes, solving Archer's financial troubles for good.⁴⁴

Joseph Holt Ingraham subtitled his novel "A Story That Hath More Truth Than Fiction in It," and his careful attention to the precise details of dental procedures gives the novel a sense of convincing reality. (One wonders whether Ingraham contemplated a live tooth transplant or perhaps received one himself.) Despite its gory detail, the tale is designed to illustrate a clear moral: dentures offered all the advantages of lost teeth. Moreover, Caroline Archer's virtues throughout the novel convince readers that her donning of dentures is not proof of lesser morality or an attempt to deceive others for ill gain, but rather a means for her to gain those just rewards she has earned through her courage. Archer sacrifices her teeth without complaint. During the operation, she "felt no pain—no grief at the

43. Mark Blackwell has conducted the most thorough study of both the mechanics and the cultural meanings of live tooth transplantation. See his "'Extraaneous Bodies.'" Josiah Flagg, broadside, 1796, Collection of the Massachusetts Historical Society, featured in the society's "Collections Online," www.masshist.org/database/177, accessed April 14, 2012. Ingraham, *Caroline Archer*, 9–10, 17, 21.

44. Ingraham, *Caroline Archer*, 15, 17.

marring of her beauty—as one by one she gave her beautiful teeth to the fangs of the despoiling iron. She thought only of the relief she was to afford her beloved mother.” For Ingraham and others in the story, Archer’s acceptance of “manufactured” teeth is further proof of her virtue and her self-sacrifice. Dentures’ deceptiveness appears in Ingraham’s story, then, not as a punishment for ill behavior but rather as a reward for virtue, a message that Washington doubtless would have applauded.⁴⁵

THE ART OF WEARING DENTURES

In Ingraham’s novel dentures prove an immediate and magic panacea for tooth loss. Once the dentist places dentures in Caroline Archer’s jaws, she immediately regains full use of her mouth and is never once troubled by the prostheses. Archer’s dentures offer a deception like a *trompe l’oeil* painting: immediate and unchanging. In reality, however, dentures were material objects that had to be worn within the mouth, and wearers struggled to adapt to them. A successful dental performance was just that: a performance that required a complicated sequence of muscular contortions; dentures required constant and active work by the wearer. Lead dentures were heavy; dentists estimate that Washington’s weighed at least a third of a pound, their weight deemed necessary to keep them in position. Moreover, because spring-loaded dentures stayed in the mouth by maintaining tension, wearing his dentures meant that the president had to exert continuous pressure on them, forcing his jaws together in order to keep his mouth shut. Because etiquette manuals demanded that polite persons exhibit a closed yet pleasantly relaxed mouth, Washington then had to put forth great effort to remain genteel. At least one British observer noted the president’s extraordinary muscular exertion, remarking in 1790, “His mouth was like no other that I ever saw; the lips firm and the under jaw seeming to grasp the upper with force, as if its muscles were in full action when he sat still.” To speak necessitated still greater dexterity: the president had to painstakingly control the dentures’ movement with his cheek muscles to prevent them from slipping to one side or the other.⁴⁶

45. *Ibid.*, 17.

46. For the difficulty of wearing spring-loaded dentures, see Woodforde, *Strange Story*, 48–50, 70; Hyson, “George Washington’s Dental History,” 21–23. For the weight of Washington’s dentures, see Sognnaes, “Dental ‘Fingerprints,’” 130. “Anecdotal Recollections,” *New Monthly Magazine and Literary Journal*, Part 1, 19, no. 78 (June 1857): 562–63. Benson J. Lossing attributes the quotation to Hazlitt; see *Recollections and Private Memoirs of Washington, By His Adopted Son George Washington Parke Custis*, ed. Benson J. Lossing (New York: Derby and Jackson, 1860), 430–31.

Perhaps the most powerful evidence for the effort required to wear dentures, however, is the physical effect on Washington's gums and lips, which swelled and protruded. The artist Gilbert Stuart famously condemned one pair of false teeth, probably manufactured by the French émigré James Gardette, for its effect on the president's physiognomy. Washington donned the prostheses for his famous Athenaeum portrait painted by Stuart. The artist later claimed that the new teeth accounted "for the constrained expression so noticeable about the mouth and lower part of the face." Washington's adopted grandson, George Washington Parke Custis, blamed the president's dentures for altering his entire facial structure; he recalled, "the artificial [teeth] . . . answer[ed] very imperfectly the purpose for which they were intended, a marked change occurred in the appearance of his face, more especially in the projection of the under lip." Washington himself complained to the dentist John Greenwood about this aspect of his dentures, although he felt the problem was with the upper lip rather than the lower. It may be easy to place the president's artificial teeth alongside his costume and his dining equipage as external markers of politeness, props that could be donned and removed as necessary for his performance of gentility to others. Dentures, however, were different. They required a commitment, not only to physical pain, but also to allowing an external artifact to shape one's eating habits, speech patterns, and facial musculature. In this way, dentures resisted the easy association between politeness, luxury, and comfort that was naturalized by the end of the eighteenth century. Artificial teeth pointed to the discomfort and unnaturalness of polite behavior even as republicans sought to solidify the connection between the natural and the virtuous.⁴⁷

THE PERILS OF FALSE TEETH

At the same time that they corrected a bodily failing, Washington's false teeth left him vulnerable; his own lack could be solved only by an exterior

47. Gilbert Stuart, *George Washington (Athenaeum Portrait)*, 1796, is in the collection of the National Portrait Gallery, Smithsonian. Gilbert Stuart is quoted by Ellen G. Miles, "George Washington (The Athenaeum Portrait)," in Carrie Rebora Barratt and Ellen G. Miles, *Gilbert Stuart* (New York: Metropolitan Museum of Art, 2004), 152–53. Miles also discusses Washington's dentures and their effect on the portrait, *ibid.* For Stuart's portraits of Washington see Ellen Miles, "Stuart in Philadelphia (1794–1803)," in Barratt and Miles, *Gilbert Stuart*, 128–90. Custis, *Recollections and Private Memoirs of Washington*, 520. George Washington to John Greenwood, December 7, 1798, George Washington to John Greenwood, December 14, 1798, *Papers of George Washington Digital Edition*. John E. Crowley, *The Invention of Comfort: Sensibilities & Design in Early Modern Britain & Early America*

object that required the president to accede some of his agency to a material good. In Ingraham's story Emily Wharton rejects false teeth because she is unwilling to accommodate herself to wearing a prosthesis. Wharton declares flatly: "No. The idea of false teeth, gold plates in my mouth—I could not endure the thought." She concludes with a plaintive cry, "I should feel as if I were made of wires and plated!"⁴⁸ Wharton is unwilling to accept material goods as even partial substitutes for the lost parts of her body. Committed to fulfilling bodily ideals of republicanism, Washington did not believe he had the luxury of eschewing dentures. This choice had significant ramifications for his presidential image, however, as Washington's dentures called the president's own mastery of his passions and control over the boundaries and contents of his body into question. Composed of animal teeth and ivory gathered from hippopotamus bones, the president's false teeth carried connotations with less well developed species as well as exotic African trade goods. In addition, as scholars have recently demonstrated, the dentures probably allowed for an act of racial mixing. The human teeth used in Washington's prostheses may have included some of the president's own pulled teeth mixed with teeth taken from his slaves. The historian Mary Thompson has discovered that Washington paid a number of unnamed "Negroes," who were probably enslaved at Washington's Virginia plantation, Mount Vernon, 122 shillings for nine teeth in 1784. These teeth may then have been inserted into the bottom half of Washington's dentures. The alternative possibility is still more radical. Like the fictitious Emily Wharton, Washington may have decided a live tooth transplant was the most efficacious solution.⁴⁹

(Baltimore: Johns Hopkins University Press, 2001), 141–70. Fliegleman, *Declaring Independence*, 124–25.

48. Ingraham, *Caroline Archer*, 16. For increasing fears over objects' agency and power over users at the end of the eighteenth century, see especially Jonathan Lamb, "The Crying of Lost Things," *ELH* 71 (2004): 949–67; Barbara M. Benedict, "The Spirit of Things," in Mark Blackwell, ed., *The Secret Life of Things: Animals, Objects, and It-Narratives in Eighteenth-Century England* (Lewisburg, Pa.: Bucknell University Press, 2007), 19–40.

49. For Europeans' associations of ivory with African savagery, see Suzanne Preston Blier, "Imaging Otherness in Ivory: African Portrayals of the Portuguese ca. 1492," *Art Bulletin* 745, no. 3 (September 1993): 395. Mary V. Thompson, a research historian at Mount Vernon, uncovered Washington's purchase of teeth; see "'They Appear to Live Comfortable Together': Private Lives of the Mount Vernon Slaves," in Philip K. Schwarz, ed., *Slavery at the Home of George Washington* (Mount Vernon, Va.: Mount Vernon Ladies' Association, 2001), 95, 98. See also Philip D. Morgan, "'To Get Quit of Negroes': George Washington and Slavery," *Journal of American Studies* 39, no. 3 (December 2005): 403–29, esp. 421–22.

While it is impossible to ascertain whether Washington had his slaves' teeth transplanted into his own mouth, it is a possibility, given that the French dentist Jean-Pierre Le Mayeur, an expert practitioner of live tooth transplants, served as Washington's dentist in the 1780s. The French dentist visited Mount Vernon, and the general expressed interest in the procedure, which Le Mayeur performed with great success on some of his friends, including Richard Varick, who had served as Washington's secretary. If Washington undertook a live tooth transplant, no mention of it survives (not surprisingly) in either the president's or Le Mayeur's letters or accounts, nor did its effects last very long, as Washington had lost all his teeth by the start of his presidency. The general would certainly not have been alone as a white southerner with African Americans' teeth in his mouth. Le Mayeur, who went on to practice dentistry in Richmond, Virginia, placed an advertisement in the *Virginia Independent Chronicle* in February 1787, asking that "ANY person, white, or black (excepting slaves) willing to dispose of their Front Teeth" call on him. The dentist's ad indicates both his continued practice of live tooth transplantation in the southern states and the fact that he accepted teeth from donors of both races.⁵⁰

To some extent, Washington's use of his slaves' teeth either in his dentures or through a transplant comes as no surprise, given the numerous forms of economic transactions and daily bodily interactions between black and white that characterized life on southern plantations. The general's payment for his slaves' teeth was similar to his purchases of other goods from his slaves, such as ducks and vegetables. In these cases, enslaved men and women produced a commodity for which their master was willing to compensate them. Nor for southern slave holders, such as Washington, would the kind of intimacy between white and black that the live tooth transplant required be foreign. For plantation masters who expected enslaved African American women to nurse their children, and indeed had their own bodily

50. Unlike Greenwood's, the exact nature of Le Mayeur's treatment of Washington's teeth is difficult to reconstruct. George Washington's diary entry for September 15, 1785, mentions Le Mayeur's visit; *Papers of George Washington Digital Edition*. Jean Le Mayeur to George Washington, January 20, 1784, and George Washington to Richard Varick, February 22, 1784, *Papers of George Washington Digital Edition*. Le Mayeur, advertisement, *Virginia Independent Chronicle*, Richmond, February 28, 1787, 3–4. For Le Mayeur's career see John Hyson and Joseph Whitehorne, *A History of Dentistry in the US Army to World War II* (Washington, D.C.: Borden Institute, 2008), 4–7.

needs attended to by African Americans daily from birth until death, the proximity of white and black teeth was a logical extension of these quotidian contacts.⁵¹

The live tooth transplant, however, represented a degree of racial amalgamation that was distinct from regular plantation life. As many dentists described in their manuals on the craft, during a live tooth transplant a tooth actually became part of the person's body, fusing with his or her gums to generate a new system. As the socket surrounded the tooth, it supposedly united its life with that of the new tooth. The level of transference between tooth and gums led some dentists to condemn the procedure because of the great possibility of transferring diseases through mixing blood. Dubois de Chémant railed against the practice, arguing that the body of the host attacked the new "animal substance" as it was "impregnated with strange blood" (a position upheld by current scientific understandings of organ transplants). On several occasions, Dubois de Chémant noted, patients contracted "contagious impurities" and "venereal or scrofulous virulence" during a transplant. These risks were so great that Dubois de Chémant concluded, "the dangerous practice of transplanting human teeth ought to be for ever banished from the profession of a dentist."⁵²

By commingling his slaves' teeth with his own, Washington took a medical risk but also a moral one; according to eighteenth-century popular knowledge, teeth could pass on bad behaviors. Medical understanding of the period held that blood passed on racial characteristics and manners. Most of these debates centered on "white blood," or breast milk, and the practice of allowing African American and lower-class women to wet-nurse. Critics charged that children breast-fed by African Americans might exhibit darkened complexions, begin to adopt different patterns of speech, and acquire the behaviors whites associated with African American culture. Like

51. For Washington's payments to his slaves, see Thompson, "'They Appear to Live Comfortable Together,'" 92–94. Ann Smart Martin, *Buying into the World of Goods: Early Consumers in Backcountry Virginia* (Baltimore: Johns Hopkins University Press, 2008), 173–77. For Washington's complicated relationship with slavery, see especially Kenneth Morgan, "George Washington and the Problem of Slavery," *Journal of American Studies* 34, no. 2 (August 2000): 279–301; Henry Wiencek, *An Imperfect God: George Washington, His Slaves, and the Creation of America* (New York: Farrar, Straus and Giroux, 2003).

52. Hunter, *Natural History*, 127–28. Dubois de Chémant, *Dissertation on Artificial Teeth*, 14–16. For similar English fears over bringing body parts from the lower sort into their own, see Blackwell, "'Extraneous Bodies,'" 37, 43–44, 46, 52, 57.

wet-nursing, the live tooth transplant allowed fluids to pass freely between races and therefore exacerbated fears of miscegenation.⁵³

To some extent, it is immaterial whether slaves' teeth literally became part of the president's body through insertion into his gums or effectively became part of the president's body through his donning of dentures. Either way, the teeth of Mount Vernon's slaves brought pieces of the "other" within the form of the soon-to-be president. Indeed, Dubois de Chémant preached that wearing dentures posed risks equal to those of the live tooth transplant in that it, too, offered the possibility for contagious diseases to be transferred. As he described, all forms of artificial teeth decayed when placed in the mouth, thus producing "miasmata and morbid particles" that "are introduced into the stomach by our spittle, and the air, which we breathe, carries likewise into the lungs, those very putrid miasmata, which . . . are absorbed into the mass of blood." Like the live tooth transplant, then, donning dentures resulted in a person's absorbing contaminants from his or her new teeth, which left Washington vulnerable.⁵⁴

Such racial interpenetration could not occur in polite trans-Atlantic society without anxiety. A satirical print, *The London Dentist*, published in London in 1784 (figure 11), highlights the trepidation with which many viewers greeted the potent mixing of black and white bodies. A dentist stands in front of a well-dressed but corpulent woman who is having a tooth drawn. Before her a black liveried servant points to his own brilliantly white teeth with a knowing grin. In his hand he grasps a small box with two white teeth peeking out. Perhaps the woman is about to undergo a live tooth transplant and bring a part of a slave's body into her own. Or perhaps the African servant serves to remind the viewer of the connection to the exotic "other" about to be forged by using ivory and hippopotamus bone (barbaric materials) as replacements for teeth lost through savage behaviors such as overindulgence. Ingraham's novel *Caroline Archer* highlights the fear and disdain with which many Americans viewed the interracial live tooth transplant. The doctor first proposes a transplant with a "negress" to Emily Wharton,

53. Rachel Trubowitz, "'But Blood Whitened': Nursing Mothers and Others in Early Modern Britain," in Naomi Miller and Naomi Yavneh, eds., *Maternal Measures: Figuring Caregiving in the Early Modern Period* (Aldershot: Ashgate, 2000), 83–99. Toni Bowers, "'A Point of Conscience': Breastfeeding and Maternal Authority in *Pamela*, Part 2," in Susan Greenfield and Carol Barash, eds., *Inventing Maternity: Politics, Science, and Literature, 1650–1865* (Lexington: University Press of Kentucky, 1999), 139–46.

54. Dubois de Chémant, *Dissertation on Artificial Teeth*, 14–16.



Figure 11. Carington Bowles (after Robert Dighton), *The London Dentist*, ca. 1784. Mezzotint. Courtesy of the Lewis Walpole Library, Yale University, 784.00.00.76 +.

assuring her that African Americans “have the most beautiful teeth in the world.” Wharton’s husband, Ashley, is shocked, exclaiming, “The idea is absolutely disgusting!” . . . a corresponding contortion of the lips” communicates his abhorrence. While Wharton’s brother, Frank, enjoys a “mischievous smile” at the thought, his sister declares, “I had rather go without teeth.” This denunciation, coming as it does on the heels of Wharton’s claim that she would rather have been “*Killed outright*” than lose her teeth in the accident casts the interracial live tooth transplant as a fate worse than death. When the doctor finally convinces Wharton that a transplant alone will give her the appearance that she desires, the heiress is careful to stipulate that she will accept only the teeth of a “young healthy white person.” For Wharton, the procedure was possible only if she could be assured that racial mixing was not taking place.⁵⁵

George Washington’s decision to accept teeth from his slaves highlights the fact that necessity could overpower such reservations. The dentist in Ingraham’s novel presents the Washington side of the argument. He found the Whartons’ disdain for a live tooth transplant with African Americans’ teeth to be narrow-minded, musing, “How prejudiced are some people! . . . There is many a mulatress with the finest teeth imaginable—scarcely as beautiful as these [Wharton’s], indeed—that would lose them for a guinea each.” The dentist admits, “Tis rather shocking to a young husband’s taste, to have his wife’s mouth filled with an African girl’s teeth, to be sure! But there is no help for it if he would have her mouth restored!” While acknowledging that a husband may be uncomfortable seeing, and perhaps kissing, his wife, once she has absorbed the teeth of an African American, the dentist is unbothered by this reservation. Instead, he posits a racial equality based on teeth’s aesthetic appearance. This mercenary attitude is in keeping with the dentist’s propensity to view everyone’s teeth as commodities to be sold and exchanged. Upon meeting Wharton, for instance, he laments the loss of her teeth in monetary terms, noting that he “would have given a sovereign a piece of them!”⁵⁶

BUYING TEETH FROM SLAVES

Perhaps it is most surprising not that Washington would use his slaves’ teeth, but that he would pay them for the specimens. For plantation masters

55. Mark Blackwell considers this print together with its pendant, also by Robert Dighton, *The Country Tooth-Drawer* (1784), though he relates the print to moral condemnation of vanity: even a poor slave can have a sign of morality that the aristocracy lacks; Blackwell, “‘Extraneous Bodies,’” 28–32. Ingraham, *Caroline Archer*, 9–10, 16.

56. Ingraham, *Caroline Archer*, 9–10.

who were accustomed to purchasing slaves' bodies and owning the labor that those bodies generated, as well as the children born from them, teeth would seem to fall naturally within their purview of ownership. Le Mayeur, for instance, explicitly excepted slaves from his call for live teeth, acknowledging that slaves' teeth belonged to their masters. A story related in Helenus Scott's *The Adventures of a Rupee*, published in London in 1782, reinforces the rights of ownership that parents or masters exercised over their subordinates' teeth. In the novel a young man recounts how his mother had sold his teeth "when I was young, to a dentist, who transplanted them into the head of an old lady of quality." His sister fared worse. She "has had nothing but her naked jaws, since she was nine years of age. It is but a poor comfort to her, that her teeth are at court, while she lives at home on slops, without any hopes of a husband." According to this logic, slaves' teeth too were not their own.⁵⁷

Despite the dentist's seeming racial tolerance in Ingraham's novel, he also asserts his control over his enslaved manservant's teeth. Throughout the story, the doctor expresses his displeasure with the slave Pete's performance and even threatens to "draw every tooth out of [his] . . . head" as punishment. When coupled with the dentist's promotion of live tooth transplant using African Americans as donors, this threat leads the reader to wonder whether Pete has already endured the procedure. The enslaved boy's pronounced speech impediment ("Yeth thir,' lisped the little negro in reply") provides further evidence that he has provided the raw materials for his master's trade. The presence of a similar enslaved African American manservant in the satirical print *The London Dentist* (see figure 11) heightens the possibility that this figure too acted as a donor when required. The boy's sly smile at the viewer may invite him or her to share in the hoax that the slave and his master have perpetrated on the wealthy white recipient. Misled as to the donor's identity, she may think that she is receiving the tooth of a white woman like herself but in reality is about to accept the tooth of an African.⁵⁸

Whereas the fictional Pete was an unwilling and uncompensated supplier of teeth, Washington's slaves were neither. The president's decision to pay

57. Helenus Scott, *The Adventures of a Rupee* (London: J. Murray, 1782), 184–85. Mark Blackwell discusses the relationship between it-narratives and attitudes toward teeth in the eighteenth century using this story; see Blackwell, "Extraneous Bodies," 54. Similar logic appeared in the anonymously authored story *The Sedan: A Novel*, 2 vols. (London: R. Baldwin, 1757), 1:48.

58. Ingraham, *Caroline Archer*, 11.

his slaves for their teeth may have been a recognition on his part that teeth were something sacrosanct and personal. Teeth have long been deemed to have a mysterious connection to their host. John Greenwood's fetishistic treatment of Washington's last tooth speaks to the emotional value that many attach to teeth. Greenwood requested that Washington give him the president's final tooth when it was extracted. The dentist then had the tooth mounted in a special golden locket with glass on two sides so that it was visible, which he kept on his watch fob. (One wonders how the private Washington felt about this.) *The Sedan*, a story by an anonymous author published in London in 1757, promotes this view of the special relationship between a person and his or her teeth. The tale dramatizes the moment when a donor recognizes his transplanted teeth in someone else's mouth. In this case a poor boy accosts a wealthy woman—smiling “to shew her new-acquired lovely rows of pearls”—as she makes her way from the playhouse. Much to the woman's dismay, the urchin screams, “Aye, I know you, and know my own tooth too from all the rest. Give me my tooth! give my tooth! my mother is angry with me for selling it.” It is certainly unlikely that any slave who volunteered a tooth to his master and received compensation would stage such a drama of recognition. If nothing else, the possibility of reprisal from his or her master would make this impossible. Indeed, class differences were enough to get the young man from *The Sedan* punished for his outburst. The lady directs her servant: “‘get the boy sent to Bridewell for his impudence.’” Yet, even if nothing was said, George Washington surely knew which enslaved men and women had given him teeth. Unlike Caroline Archer, enslaved people did not have the option of replacing lost teeth with artificial ones. For them, their disability was inescapably visible and permanent. The noticeable gaps in the president's slaves' mouths would have been a constant visual reminder of whose teeth sat in his own mouth, as would the knowledge that he had inflicted on others the deformity he sought to conceal.⁵⁹

That Washington, like many slave owners, was well aware of the appearance of his slaves' teeth is evident through the advertisements he placed for

59. Greenwood's watch fob bearing Washington's last tooth is in the collection of the New York Academy of Medicine; see Ann Pasquale Haddad, New York Academy of Medicine, letter to the editor, headlined “Washington's Last Tooth Rests in New York,” *New York Times*, March 30, 1991, www.nytimes.com/1991/03/30/opinion/1-washington-s-last-tooth-rests-in-new-york-339991.html, accessed March 20, 2014. *The Sedan*, 1:48–49. Mark Blackwell also discusses this fictional incident in “Extraneous Bodies,” 52–53.

runaway slaves. In 1761 Washington advertised for five runaways, two of whom had noteworthy teeth; Neptune's are described as "stragling and fil'd sharp," whereas Cupid was "round and full faced, with broad Teeth before." When trying to capture runaways, other plantation owners similarly noted whether slaves had lost teeth as well as their dental health. John Edmonson, who advertised for his slave Luke in the *Virginia Gazette* in September 1772, described him as "of a very black Complexion, has very white Teeth, and I believe one of his fore Teeth is out"; other masters noted slaves who exhibited "Black Teeth," "yellowish rotten Teeth," a "full Set of Teeth," a "remarkable Set of white Teeth and black Gums," and—more specifically—an enslaved woman who had "two of her upper fore Teeth . . . rotten and broken off."⁶⁰

Masters may have been aware of slaves' tooth loss and general dental health because some paid dentists to remove their slaves' rotten or cavity-stricken teeth. Washington did so for a house slave on at least one occasion. According to family history, the general also provided his slaves with a set of scalers for their use (figure 12). Scalers, dental tools that included a handle and interchangeable heads, allowed users to scrape plaque off their teeth. Given Washington's purchase of his slaves' teeth, the scaler set leads one to wonder whether the general did this out of concern for his slaves' health and perhaps his own pocket, since he may have had to pay for medical treatment, or whether this was intended to encourage the maintenance of good specimens for his possible future need.⁶¹

60. George Washington, advertisement, *Maryland Gazette*, August 20, 1761; John Edmonson, advertisement, *Virginia Gazette*, September 3, 1772; William Drummond, advertisement, *Virginia Gazette*, June 15–22, 1739; John Bushrode, advertisement, *Virginia Gazette*, August 10–17, 1739; John Brown, advertisement, *Virginia Gazette*, March 14–21, 1745; Samuel Galloway, advertisement, *Virginia Gazette*, August 21–28, 1746; Martha Massie, advertisement, *Virginia Gazette*, October 27, 1752. Advertisements discovered through the "Geography of Slavery in Virginia" database, administered by Tom Costa, www2.vcdh.virginia.edu/gos/index.html, accessed June 24, 2012.

61. Washington paid an unidentified tooth drawer for "drawing Wills Tooth" in October 1771. Will was probably William or Billy Lee, Washington's longtime enslaved manservant; see Cash Accounts for October 1771 in *Papers of George Washington Digital Edition*. See also George Washington diary entry for February 6, 1785, *ibid.* For the scalers see "Scaler Set," www.mountvernon.org/research-collections/collections-holdings/browse-the-museum-collections/object/w-546d,f,i/#, accessed August 27, 2015; for the scalers' history, see label copy on file in object file W-546 D, F, I, Donald W. Reynolds Museum, George Washington's Mount Vernon.

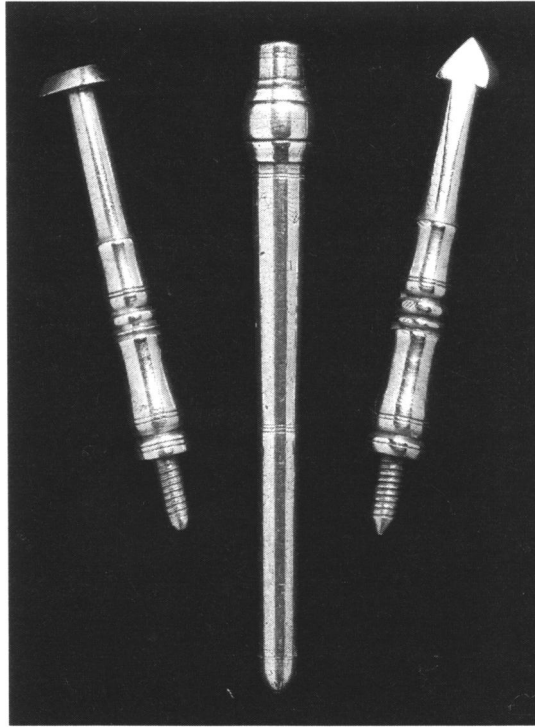


Figure 12. Unknown maker, probably English, scaler set, ca. 1750. Courtesy of George Washington's Mount Vernon, W-546 D, F, I.

As the boy's reaction in *The Sedan* suggests, Mount Vernon's enslaved population, too, would have been aware of whose teeth now resided in their master's body. Would slaves have considered it a triumph to know that their teeth helped the first president assume his office? Or did they view Washington's removal of their teeth with dissatisfaction and growing anger? The boy in *The Adventure of a Rupee* exulted that his lost teeth ultimately killed their host. He related how the woman's "gums[,] rotten with disease and sweetmeats," eventually caused her (his) teeth to rot and fall out while she ate, resulting in her choking to death. Washington's slaves may have been grateful for the opportunity to earn money that required no work on their parts in exchange. Yet upon further investigation, the general's donors perhaps resented the amount they were compensated. Le Mayeur offered two guineas (forty-two shillings) for each tooth. Washington paid significantly less, approximately fourteen shillings for each of the nine teeth he purchased. Of course, Mount Vernon's slaves could not have sold their teeth

without their master's approval, so perhaps the notoriously frugal Washington took advantage of his virtual monopoly. Regardless of their feelings about the matter, both master and slaves were united by their knowledge of a deception: Washington concealed a disability with his prostheses.⁶²

DENTISTRY AND RACE IN EARLY AMERICA

Washington's possible use of his slaves' teeth adds another layer of concealment to his dentures, one that made his prostheses still more fraught in the new American republic. Because Washington's teeth, which appeared white and even, may have really been the teeth of his slaves, his dentures accomplished an act of racial passing. Washington used his slaves' teeth to help identify them in runaway advertisements, but he hoped that others would be unaware of the true origin of his teeth. Along with other republican leaders, the president struggled to keep African Americans and poor whites, both deemed to have poor civility, from inclusion within the new republican body of citizens. As Washington's dentures demonstrate, however, citizens still relied on these groups' uncouth bodies to make their own appear civil. If Washington was the ultimate republican, then what did his embrace of dental hybridity mean for the success of republican efforts to erect bodily and political boundaries between savage and civil, slave and citizen? On a fundamental level, Washington's presidential body demonstrated the impossibility of achieving republican ideals without African Americans and for many without prostheses. As his decision to wear dentures despite the peril suggests, Americans in the early republic recognized the persistence and commonality of physical handicap and learned to embrace the use of material goods to replace bodily lack as an acceptable mode of achieving politeness. Yet this process was not easily accomplished. Ingraham's story testifies that as late as the 1840s Americans' attitudes toward dental prostheses were heavily influenced by their racial fears coupled with their uneasiness over material objects' power within and over bodies.⁶³

62. Scott, *Adventures of a Rupee*, 184. Le Mayeur, advertisement, *Virginia Independent Chronicle*, February 28, 1787, 3–4. For Washington's payment see Thompson, "'They Appear to Live Comfortable Together,'" 92–94.

63. For republicans' postcolonial fears of contamination and their attempts to delimit the citizenry, see Kariann Yakota, *Unbecoming British: How Revolutionary America Became a Post-colonial Nation* (Oxford: Oxford University Press, 2011); Carol Smith-Rosenberg, *This Violent Empire: The Birth of an American National Identity* (Chapel Hill: University of North Carolina Press, 2010). For race in Ingraham's novels, see Sarah N. Roth, "The Politics of the Page: Black Disfranchisement and the Image of the Savage Slave," *Pennsylvania Magazine of History and Biography* 134, no. 3 (July 2010): 209–33, esp. 211, 217–20.

Still, the ultimate deception perpetuated by George Washington's dentures was yet to come. The president's teeth's greatest success was arguably not during Washington's lifetime but, rather, after his death, when his technologically sophisticated and racially implicated dentures would be remembered as simple wooden teeth. Denying the problematic deceptiveness of Washington's dentures and overlooking the associations his tooth loss had for his peers, late nineteenth- and early twentieth-century Americans recast the president's prostheses as obvious substitutes that could fool no one. Washington's wooden dentures resonated with Americans' idea of the first president's virtue, a man who was so transparent and honest that he could not lie about chopping down a cherry tree. Indeed, some of the more fantastic popular legends connected these two myths by imagining that Washington's teeth were constructed from a branch of the fallen cherry tree.⁶⁴ The president's dentures continued to hide in plain sight.

64. The origin of the myth of Washington's wooden teeth is still undiscovered. For its possible sources, see Etter, "Wooden Teeth Myth." For the uniting of the cherry tree myth with the dentures, see Hyson, "George Washington's Dental History," 3–4.